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Instructional Methods and Attitudes Among Nursing Faculty Related to Students With Disabilities

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This is to certify that the doctoral dissertation by

Melissa Anne Radecki

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Nurse educators are tasked with preparing safe, competent nurses but are faced with unique challenges in helping students with disabilities. Students with learning disabilities require accommodations which are alterations or adjustments within the learning environment and are developed by the instructor. The purpose of this 3-manuscript dissertation, guided by the universal design for instruction (UDI), was to explore the attitudes and instructional methods used among nursing faculty related to teaching students with learning disabilities. Three research questions were framed as parallel studies to address the gap in understanding how faculty view nursing students with disabilities, how clinical specialty influences faculty's teaching methods, and what UDI teaching methods faculty use. Nursing faculty who teach in the classroom for prelicensure nursing programs were recruited to complete the Instructional Methods and Attitudes Faculty Survey. Data from 102 participants were analyzed using a Wilcoxon-Mann-Whitney test, which indicated significant differences between the use of inclusive teaching methods (hands-on or interactive and problem solving, communication and interaction among students brainstorming, and providing class outlines or lecture slides before class). There were no differences when comparing faculty attitudes toward UDI familiarity, disability familiarity, and clinical specialty. The implementation of UDI promotes social change by creating an inclusive learning environment that increases the likelihood of success for students with learning disabilities. Future research should focus on best practices to educate faculty about inclusive teaching paradigms, such as UDI and explore faculty and student perspectives about the use and implementation of UDI.

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Dedication

To my husband, Brad, I could not have achieved this goal without you. You have been my constant support throughout every academic and professional milestone, always reminding me that I am capable of overcoming any obstacle. You silenced the voices of doubt, calmed the storms of fear, and believed in me when I didn't think I could do it. From sickness and health and multiple degrees later, you still love me unconditionally. I know I am lucky to have an amazing partner who helps me chase my dreams as if they were your own. Now, it is your turn!

To my best friend and sister of the heart, Gillian C. Smith, MSN, RN-BC, CRRN, CBIS. From daily emails and text messages declaring that I am a "ROCK STAR" and telling me that you are my biggest fan to packing my lunch every day during the Dallas residency, I could not have survived this process without your unwavering support. Your friendship has been one of the greatest joys of my life, thank you.

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Lastly, to the rock band Weezer. Thank you for releasing the *Black* and *Teal* albums, as these were the soundtrack to my writing. "That's right, music saved my life."

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Part 1: Overview

Introduction

Nurse educators in the academic setting are tasked with preparing safe, competent nurses, along with meeting the demands of a constantly changing practice (Ruth-Sahd, 2014). Nurse educators are faced with unique challenges with providing accommodations for students with disabilities (Meloy & Gambescia, 2014). With an estimated 4.9 million children between the ages of 3 and 17 years diagnosed with learning disability (Centers for Disease Control and Prevention [CDC], 2005), higher education will require the implementation of alterations and adjustments to meet the learning needs of students with learning disabilities (May, 2014). As more students with varying ranges of disabilities enroll in college, nursing faculty will encounter an increase in requests for support and special considerations related to accommodating the disabilities (Marks & McCulloh, 2016).

Caring is inherent to nursing and translates into nursing education through ensuring student success (Meloy & Gambescia, 2014). According to the CDC (2005), 1 in 5 people live with at least one disability, indicating the potential for greater numbers of students with disabilities admitted to higher education. Even with federal legislature and policies protecting rights and regulating the implementation of accommodations, there is still a disconnect in nursing education related to the understanding and promotion of students with disabilities (Marks & McCulloh, 2016).

The concept of students with learning or neurodiverse disabilities in nursing education has been explored by researchers focusing on faculty attitudes and perception;

however, there has been limited research on best practices that promote inclusion (Neal-Boylan & Smith, 2016). The National League for Nursing (2016) supports the paradigm shift towards pedagogies that promote inclusive learning for all students. Universal design for instruction (UDI) is a framework for designing an inclusive learning environment in which the educator utilizes various teaching methods to meet the learning needs of diverse students (Scott, McGuire, & Shaw, 2003). The implementation of UDI in nursing education can address the necessity to create curriculum and instruction that is inclusive for students with disabilities (Harris, 2018; Levey, 2018).

Background

Within nursing education, there are still misconceptions and bias regarding the ability of students with disabilities to be successful in nursing programs (Marks & McCulloh, 2016). The medical model perceives individuals with a disability as sick and unable to function at the same level as an individual without a disability (Sowers & Smith, 2004). Levey (2014) identified the use of the medical model by nursing faculty as the basis for the argument that students with disabilities lack the ability to be successful in nursing school and are a threat to patient safety, even though there is no research to support this position. Faculty perceptions toward students with disabilities are also based on the assumption that students who require accommodations would not be able to pass the National Council Licensure Examination (Levey, 2014). Evans (2014) surveyed nursing faculty regarding their perceptions of learning disability among students with dyslexia. Nurse educators reported that learning disability among students with dyslexia is a potential patient safety issue, and students with dyslexia should not be admitted to

nursing programs (Evans, 2014). There was a gap in the literature related to the understanding of nursing faculty's attitudes toward students with learning or neurodiverse disabilities, and there was need to evaluate the use of teaching methods that promote inclusion in the classroom.

Literature Review **Disability.** Disability, according to the World Health Organization (2018), is a term that describes physical or mental impairments that limit an individual's ability to actively participate in a task or involvement in life experiences. The American with Disabilities Act Amendments Act of 2008 broadened the definition of disability to include any impairment that is episodic or in remission, which when active would have substantial impact on life activities. The concept of disability can further be defined by impairment or activity deficit, such as physical, sensory, learning, or mental (Levey, 2018).

Learning disabilities are disorders that impact basic psychological processes that involve auditory and visual perception, integration, memory, expression, and fine or gross motor skills (Learning Disabilities Association of America, 2018). Specific learning disabilities are neurobiological, involving cognitive functions that affect processes of learning (Gartland & Strosnider, 2018). The disability affects the educational performance with underachievement in one or more of the following areas: listening comprehension, verbal expression, readings skills and comprehension, written expression, and mathematical computation or problem-solving (Gartland & Strosnider, 2018).

Harris (2018) described students with learning and process information variations as neurodiverse. Neurodiversity refers to neurological conditions that are considered natural human variations (Rentenbach, Prislovsky, & Gabriel, 2017). Neurodiverse learners include individuals with attention deficit and autism spectrum (Harris, 2018). Students who identify as neurodiverse can also struggle with social skills, which can impact their ability to function in the learning environment (Gillespie-Lynch et al., 2017).

Disability is a global term used to describe a condition that affects the ability to learn. Within nursing education, researchers have focused on students with physical disabilities. Levey (2018) included physical, sensory, learning/cognitive, and mental illness disabilities when defining diverse learners. Students with physical disabilities are often viewed as a concern related to the clinical competencies of nursing curriculum (Neal-Boylan & Smith, 2016). Limiting research to students with physical disabilities fails to address the needs of students with learning disabilities.

Attitudes of faculty toward students with disabilities. Even though the presence of students with disabilities has been steadily increasing in higher education, they still face barriers that impact their ability to learn (Sniatecki, Perry, & Snell, 2015). One of the factors that can contribute to the challenges for students with disabilities is the lack of understanding by faculty on how to accommodate these students' learning needs (Sniatecki et al., 2015). Exploring faculty attitudes toward students with disabilities may reveal potential barriers to implementing UDI (Black, Weinberg, & Brodwin, 2014; Sniatecki et al., 2015).

Becker and Palladino (2016) studied college faculty perspectives about teaching students with disabilities, focusing on willingness to make accommodations utilizing inclusive teaching methods. Becker and Palladino reported that one third of the participants disagreed that faculty should make academic adjustments for students. Faculty who reported low efficacy in teaching were more likely to have negative attitudes toward implementing accommodations for students with disabilities and were less likely to follow American Disability Act requirements (Becker & Palladino, 2016).

Faculty backgrounds influencing attitudes toward students with disabilities were explored in a grounded theory study by Ashcroft and Lutfiyya (2013). Clinical specialty influenced how faculty perceived students with disabilities, with mental health nurses reporting positive views compared to those who did not practice in mental health (Ashcroft & Lutfiyya, 2013). Becker and Palladino (2016) reported that the college of education faculty were more likely to implement multiple teaching methods to accommodate students with disabilities. These findings suggested that faculty with academic preparation are more likely to use multiple teaching methods to accommodate students with disabilities.

Faculty's previous experience with students with disabilities also influenced faculty's attitudes and use of UDI. Nursing faculty reported positive perspectives toward students with disabilities when related to course and classroom work (Ashcroft & Lutfiyya, 2013). Black et al. (2014) reported that faculty who had no familiarity with disability were less likely to use UDI teaching methods case studies and more likely to provide lecture notes prior to class, compared to faculty who had familiarity with

disability. Faculty with a previous negative experience were less likely to give students a choice in assessments compared to faculty who reported having previous positive experiences with students with disabilities (Black et al., 2014). Ashcroft and Lutfiyya (2013) stated that educators who had previously taught students with disabilities were more likely to adapt teaching methods in future courses. Sniatecki et al. (2015) determined that the type of disability influences faculty attitudes. Faculty had more positive attitudes toward students with physical disabilities compared to students with learning and mental health disabilities (Sniatecki et al., 2015).

Theoretical Framework

The theoretical framework for this study was universal design for instruction (UDI). Students learn differently; however, students with learning disabilities may require further accommodations in the classroom (Meloy & Gambescia, 2014). Requested accommodations often associated with students with learning disabilities result from the student not receiving the type of instruction and flexibility that complements the student's preferred learning style (Meloy & Gambescia, 2014). There is the assumption that the flexibility and adaption of instruction for one student should then be made for all students (Meloy & Gambescia, 2014). UDI is a framework that is used to create an inclusive learning environment for all students, including students with learning disabilities (Black et al., 2014).

The concept of universal design (UD) was first applied to the physical environment and involved adaptations within the design to benefit many users (Scott et al., 2003). The principles of UD focus on being accessible to any individual regardless of

disability by designing the instruction to be simple, intuitive, and requiring low physical effort (Scott et al., 2003). Scott et al. (2003) adapted the theory of UD to education, developing the principles of universal design for instruction. The first assumption of UDI is that the educator's role is to teach students with disabilities effectively without compromising academic integrity (Scott et al., 2003). According to UDI, educators create instruction that is inclusive of all students, while enforcing the same academic expectations (Scott et al., 2003). The second assumption focuses on the design of the instruction (see Figure 1). Scott et al. (2003) stated that to meet the needs of all students, an integrative approach is preferred over the use of multiple separate solutions. An integrative approach includes various instructional methods, materials, and assessments that provide students with different learning needs with equal access to the information (Black et al., 2014).

UDI is based on nine principles (see Figure 1) that the instructional design, utilization, flexibility in the use of multiple teaching methods, and the learning environment are useful and accessible for all learners regardless of learning style or learning disability (Black et al., 2014). The principles of equitable and flexibility are achieved when the instruction is designed to be useful and accessible by providing all students with equal access and accommodations (Scott et al, 2003). The instructional design is considered simple and intuitive when it is straightforward and predictable and eliminates unnecessary complexity (Scott et al., 2003). The principle of perceptible information focuses on how the instruction is designed so that information is effectively communicated to students regardless of disability (Scott et al., 2003). For example, the

principle of perceptible information is applied when choosing a textbook that has multiple formats such as digital or hard copy. The educator incorporates the principle of tolerance for error by designing the instruction to meet the learning pace and prerequisites skills of any student (Scott et al., 2003). This can be done by allowing students opportunities to turn in work at stages or provide practice assignments. The final principles create instruction that require low physical effort for the student in a learning environment that is an appropriate size and space (Scott et al., 2003).

The use of UD in teaching students with disabilities has been explored in studies related to higher education. Black et al., (2014) explored the current teaching methods among college faculty and whether the principles of UDI are incorporated in the instructional design. The Instructional Methods and Attitudes Faculty Survey was developed using the UDI principles that focused on the instructional methods utilized by college faculty (Black et al., 2014). Black et al. reported that the frequency of use of instructional methods that apply to the principles of UDI varied, and the most frequently used method was following syllabus. Black et al. stated that there were no significant differences among college faculty based on age, professional rank, number of years of teaching, and personal experience with disability when comparing the instructional methods used and the implementation of UDI.

Dallas, Sprong, and Upton (2014) also reported no significant differences in the implementation of UDI when comparing faculty status; however, there were significant differences in the number of years of teaching. Faculty who reported 13 or more years of teaching were more likely to implement UDI compared to faculty with 6 or fewer years

of experience (Dallas et al., 2014). Levey (2016) also found a significant difference among years of teaching and willingness to implement UDI; however, faculty with more years of teaching were less likely to adopt UDI. Levey also reported that there were no significant differences in willingness to adopt UDI when comparing faculty's degree level, status, or teaching responsibility.

There was limited research on the use of UDI in nursing education. A literature review conducted by Levey (2018) to explore the use of UDI in education indicated only three empirical studies, with only one study related to use of UDI in nursing education. Marcyjanik and Zorn (2011) focused on the challenges of students with disabilities and the application of UDI in an online course. What nursing faculty understand about the implementation of UDI with teaching students with disabilities had not been explored.

When faculty implement UDI strategies that accommodate different learning styles and preferences, the need to adapt the instruction for students with learning disabilities is minimized (Black et al., 2014). When faculty are guided by the UDI framework, the instruction will be inclusive to all students, without the requirement to make individual accommodations (see Figure 1).

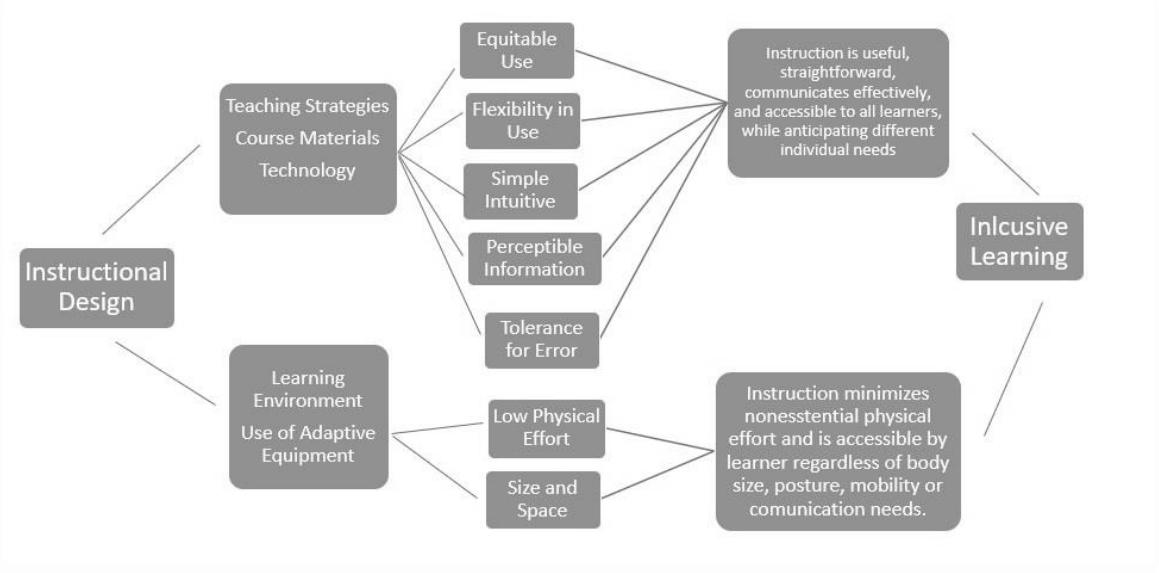

Figure 1. Diagram of UDI.

Overview of the Manuscripts

Nursing professionals have viewed disability through the medical model, focusing on the impairment; the medical model has been used to perceive students with disabilities as lacking the ability to meet the rigorous demands of the nursing curriculum (Marks & McCulloh, 2016). The traditional pedagogies within nursing education are also factors in the perception of students with disabilities. Nursing faculty lack knowledge related to teaching strategies that accommodate learning for students with disabilities (Harris, 2018). This leads faculty to make individual modifications that can alter instruction, which does not enhance learning (Harris, 2018). Nurse educators need to adopt pedagogies such as UDI into nursing education to meet the needs of all learners (Harris, 2018). However, before changes can be implemented, there is a need to understand how nursing faculty perceive students with disabilities, the factors that influence the

perceptions, and the current teaching methods being implemented (Ashcroft & Lutfiyya, 2013).

The purpose of this three-manuscript dissertation was to explore the attitudes and instructional methods used among nursing faculty related to teaching students with learning disabilities. The three manuscripts were framed as a parallel study to address research questions that addressed the gap in understanding how nursing faculty view students with disabilities, how clinical specialty influences faculty's teaching methods, and what UDI teaching methods faculty are implementing.

Manuscript 1

For nurse educators to shift pedagogies, research is needed to identify the attitudes held by nursing faculty about students with disabilities (Marks & McCulloh, 2016). There is limited research on how faculty perceive students with disabilities in nursing education, and what barriers exist related to accommodations for these students (Marks & McCulloh, 2016). Through examination of nursing faculty's attitudes toward students with disabilities, barriers and challenges to implementing UDI may be mitigated.

Research question. What is the difference in teaching methods and attitudes toward students with disabilities between nursing faculty who are familiar with UDI and nursing faculty who are not familiar with UDI?

Nature of the study and design. I used a descriptive, quantitative approach utilizing a survey design to explore faculty attitudes toward students with disabilities and to identify teaching methods that are implemented that follow the UDI framework. The

variables for the study were faculty attitudes toward students with disabilities and knowledge of UDI.

Possible types and sources of data. I collected data using the Instructional Methods and Attitudes Faculty Survey (Appendix A; Black et al., 2014). The survey instrument was used to measure faculty attitudes and familiarity toward students with disabilities and to identify current teaching practices. The survey questions included possible responses on a Likert scale along with demographic information (Appendix B).

Manuscript 2

When a student discloses a learning disability and requests accommodations, it is the faculty's responsibility to implement the accommodations into the instructional design (May, 2014). Training about accommodations and exposure to students with learning disabilities could decrease attitudinal barriers to implementing UDI (Black et al., 2014). However, little is known about the difference in attitudes toward instructional methods and accommodations among nursing faculty. In the second manuscript, I compared attitudes toward instructional methods and accommodations among nursing faculty who are familiar with learning disability and nursing faculty who are not familiar with learning disability.

Research question. What is the difference in teaching methods and attitudes toward students with disabilities between nursing faculty with disability familiarity and nursing faculty without disability familiarity?

Nature of the study. I used a descriptive, quantitative approach utilizing a survey design to determine whether there is a relationship between the faculty attitudes and

teaching methods and disability familiarity. The variables for the study were faculty attitudes, teaching methods, and faculty report of disability familiarity.

Possible types and sources of data. I collected data using the Instructional Methods and Attitudes Faculty Survey (Black et al., 2014). The survey instrument was used to measure faculty attitudes and familiarity toward students with disabilities and to determine the current teaching practices. The survey included questions with responses on a Likert scale along with demographic questions.

Manuscript 3

Ashcroft and Lutfiyya (2013) and Becker and Palladino (2016) found that faculty's years of teaching and clinical specialty can influence their attitudes toward students with learning disabilities. Nursing faculty often include educators who have worked in a variety of clinical settings and have provided care to different patient populations. In the third manuscript, I compared the attitudes and instructional methods among nursing faculty's clinical specialties. The results could suggest a gap in knowledge and indicate whether clinical practice background is a factor in faculty attitudes toward students with learning disabilities.

Research question. What is the difference in teaching methods and attitudes toward students with learning disabilities among nursing faculty with clinical specialty in mental health compared to nursing faculty with clinical specialty in medical-surgical?

Nature of the study. I used a descriptive, quantitative approach utilizing a survey design to determine whether there was a relationship between the faculty attitudes and teaching methods and clinical specialties. The variables for the study were attitudes and

teaching methods for faculty who report a clinical specialty in mental health and the attitudes and teaching methods for faculty who report a clinical specialty in medical-surgical.

Possible types and sources of data. I collected data using the Instructional Methods and Attitudes Faculty Survey (Black et al., 2014). The survey instrument was used to measure faculty attitudes and teaching methods. The survey included questions with responses measured on a Likert scale along with demographic questions.

Significance

As more students with disabilities apply to nursing programs, nurse educators need to understand how to create an inclusive learning environment (Neal-Boylan & Smith, 2016). An inclusive learning environment requires nursing faculty to implement teaching methods that meet the learning needs of all students (Meloy & Gambescia, 2014). However, further research is needed related to nursing faculty's attitudes toward students with disabilities, along with the factors that influence the implementation of teaching methods that accommodate these students (Ashcroft & Lutfiyya, 2013). This three-manuscript dissertation addressed the gap in the literature through exploration of the attitudes of nursing faculty toward students with disabilities and through identification of the teaching methods used in nursing education that promote an inclusive learning environment.

Significance to Discipline

Even though the profession of nursing is moving toward inclusivity, there are still biases related to the ability of students with disabilities to be successful in the nursing

curriculum (Marks & McCulloh, 2016). There is support for nursing education to shift from traditional pedagogies of classroom instruction through adaptation of teaching methods that remove barriers for diverse learners (Harris, 2018). UDI has been shown to create inclusive learning environments that can meet the learning needs of all students without compromising academic rigor (Black et al., 2014; Dallas et al., 2014).

Significance to Social Change

Exploring how nursing faculty accommodate students with disabilities and the factors that influence faculty's attitudes can lead to further research that identifies best practices that can eliminate barriers for students with disabilities (Marks & McCulloh, 2016). By eliminating the barriers for students with disabilities, more individuals might have the opportunity to become nurses (Marks & McCulloh, 2016). With the profession facing a continued shortage of nurses, nursing educators need to be open and flexible and include diverse students, including those with disabilities (Mark & McCulloh, 2016). A more inclusive learning environment within nursing education that promotes students with disabilities may create positive social change by increasing the number of nurses entering the workforce.

Summary

As more students with learning disabilities enter higher education, there is a need to identify pedagogies that support best teaching practices that promote inclusive learning (Becker & Palladino, 2016; Black et al., 2014; Dallas et al., 2014; May, 2014). Currently, students must disclose their disability and request specific accommodations. Instead of promoting inclusiveness and equity in learning, the self-disclosure and accommodation

requests often single out students by their differences (Harris, 2018). Faculty are also challenged with understanding how to make accommodations that do not alter the learning or instructional design (Harris, 2018). UDI provides a framework for educators to create instruction and implement teaching strategies that are inclusive to all learners regardless of disability or skill (Black, et al., 2014; Harris, 2018). Implementing UDI may eliminate the need for faculty to create individual accommodations, while ensuring that any student with disability has equal accessibility to the learning.

Even though researchers have investigated faculty attitudes toward students with disabilities and implementation of UDI in higher education (Becker & Palladino, 2014; Black et al., 2014; Dallas et al.; Sniatecki et al., 2015), the phenomenon has not been explored in nursing education. The nursing profession pedagogy of caring includes the assumption that students with disabilities are impaired, which could perpetuate bias among nursing faculty (Marks & McCulloh, 2016). Before nursing educators can adapt inclusive learning pedagogies, research is needed to examine the attitudes of nursing faculty toward students with learning disabilities. Exploration of barriers and factors that could influence nursing faculty's attitudes toward students with learning disabilities may provide insight for development of faculty training. The findings from this three-manuscript dissertation may impact how nurse faculty design instruction for inclusive learning and decrease the challenges for nursing students with disabilities.

Part 2: Manuscripts

Faculty Attitudes Toward Students With Disabilities

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing Education

Outlet for Manuscript

Nurse Educator: This scholarly, peer-reviewed journal with a target audience of nurse educators and administrators in academic or other settings focuses on topics related to nursing education, including curriculum, instruction, and evaluation. Accepted types of manuscripts are original research, manuscripts (nondatabased), reviews, special interest, and teaching tips. Submission requirements for this journal are the following:

- Manuscripts are to be prepared in *American Medical Association (AMA) Manual of Style* (10th edition).
- Original research manuscripts have a maximum page length of 16 pages, including abstract and references.
- Abstract of research, no more than 150 words, should include the following headings: background, purpose, methods, results, and conclusions.

Information about the journal can be accessed at the following:
https://journals.lww.com/nurseeducatoronline/Pages/aboutthejournal.aspx
Information about submission requirements can be accessed at the following:
http://edmgr.ovid.com/ne/accounts/ifauth.htm

Abstract

As more students with learning disabilities enroll in nursing programs, nursing faculty will need to implement inclusive learning pedagogies, such as universal design for instruction (UDI). There is a lack of research related to nursing faculty's understanding and use of inclusive teaching methods in the classroom to meet the learning needs of students with learning disabilities. The purpose of this study, guided by the UDI theory, was to explore whether UDI familiarity influenced the frequency of use of inclusive teaching methods and attitudes toward students with disabilities. More nursing faculty (n = 61) responded as being unfamiliar with UDI compared to nursing faculty who responded as being familiar or very familiar with UDI (n = 41), which supported the knowledge gap of UDI. A Mann-Wilcox-Whitney test was conducted to compare the difference in frequency of use of inclusive teaching methods with a significant difference in the use hands-on or interactive and problem solving, and communication and interaction among students is observed. There was no significant difference in faculty attitudes toward students with learning disabilities. Recommendations for future research should focus on the development of inclusive teaching methods utilizing UDI principles and determining the effectiveness of UDI on student outcomes. Understanding nursing faculty's use of UDI could promote positive social change by improving the outcome of nursing students with learning disabilities.

Introduction

In recent years, there has been an increase in the number of students entering higher education with documented disabilities (May, 2014). These students will often require accommodations, which include adjustments or alternatives to the learning environment (Marks & McCulloh, 2016). Despite efforts to promote inclusive leaning in nursing education, there is a concern that nurse educators still hold negative views toward students with disabilities (Ashcroft & Lutfiyya, 2013). There is a lack of understanding of how nurse educators perceive students with disabilities and best practices that promote inclusive teaching (Neal-Boylan & Smith, 2016).

Significance

The National League for Nursing (2016) supported the admission of students with disabilities into nursing programs along with the implementation of pedagogies that promote inclusive learning. Nurse educators are in a unique position to evaluate how to meet the learning needs of students with disabilities through the implementation of inclusive teaching methods (Marks & McCulloh, 2016). Current pedagogies fail to support inclusivity within nursing curriculum (Harris, 2018).

The theoretical framework for this study was universal design for instruction (UDI). The principles of UDI are used to develop and implement instruction that is accessible by all students regardless of disability (Scott, McGuire, & Shaw, 2003). When faculty implement UDI strategies that incorporate different learning styles and preferences, the need to adapt the instruction for students with learning disabilities is minimized (Black, Weinberg, & Brodwin, 2014). When faculty are guided by the UDI

framework, the instruction will be inclusive to all students without the requirement to make individual accommodations.

Nursing faculty misconceptions and biases regarding the ability of students with disabilities to be successful in nursing programs remain a challenge with adopting inclusive pedagogies (Marks & McCulloh, 2016). Before nurse educators can adopt these pedagogies, there is a need for further research regarding the attitudes of nursing faculty toward students with disabilities and identifying the factors that influence their perspective (Marks & McCulloh, 2016). This quantitative study contributed to knowledge about nursing faculty's attitudes toward students with disabilities and best practices for inclusion. The purpose of this study was to determine whether there was a difference in teaching methods and attitudes toward students with disabilities between nursing faculty who are familiar with UDI and nursing faculty who are not familiar with UDI.

Relevant Scholarship

Becker and Palladino (2016) studied college faculty perspectives about teaching students with disabilities, focusing on willingness to make accommodations utilizing inclusive teaching methods. Becker and Palladino reported that one third of the participants disagreed that faculty should make academic adjustments for students. Sniatecki, Perry, and Snell (2015) reported that 4.9% (n = 6) of faculty agreed or strongly agreed that the accommodations for students with disabilities compromised academic integrity and gave these students an unfair advantage over students without accommodations. Sniatecki et al. stated that a small number of respondents reported this

belief but acknowledged that this attitude toward students with disabilities exists and needs to be addressed.

Within nursing education, there is limited literature that focused on faculty attitudes and best practices that promote inclusion (Neal-Boylan & Smith, 2016). Harris (2018) explored the use of UDI as a framework for nursing education, stating that before a paradigm shift can occur, there needs to be a change in faculty perspectives. Levey (2016) surveyed nurse educators to identify the relationship between teaching practices and willingness to adopt inclusive teaching practices. Levey reported the that years of teaching had a negative effect on implementing inclusive teaching methods ($p = 0.003$). Ashcroft and Lutfiyya (2013) conducted a qualitative study about nurse educators' perspectives and found that most educators believed that is was difficult to support and challenging to teach and evaluate students with disabilities. Nurse educators also reported concerns related to the safe practices of students with disabilities and their ability to adequately provide care to patients (Ashcroft & Lutfiyya, 2013). Marks and McCulloh (2015) argued that the nursing pedagogy of caring informs inaccuracies about disability concepts and frameworks and lack of understanding toward students with disabilities.

Research Question

What is the difference in teaching methods and attitudes toward students with disabilities between nursing faculty who are familiar with UDI and nursing faculty who are not familiar with UDI?

Nature of the Study and Design

I used a descriptive, quantitative approach including a survey design to explore faculty attitudes toward students with disabilities and to identify UDI teaching methods that are implemented. For this study the independent variable was faculty familiarity with UDI. The dependent variables were faculty attitudes and teaching methods. The results may be used by nurse faculty to develop understanding of the attitudes toward students with disabilities, and the teaching methods that are currently in use, which can promote inclusive learning.

Methods

Population

The target population for this study was nursing faculty who are classroom instructors who teach in a prelicensure nursing program that awards an associate's or baccalaureate degree. Nursing faculty who teach in graduate and postgraduate programs were not included in this study because students in these programs are already registered nurses.

Sample and Power

Purposive sampling was used for the study to ensure that the adequate sample size was achieved based on the characteristics of the population required for the study (see Burkholder, Cox, & Crawford, 2012). The inclusion criteria for the study were nursing faculty who teach in the classroom for any prelicensure nursing program. Nursing faculty who only teach clinical or lab in prelicensure nursing programs, along with faculty who teach in the RN-BSN, graduate, or doctoral programs, were excluded from the study

because faculty who teach in these programs enroll students who are already registered nurses and have completed a prelicensure nursing program.

The power analysis was based on a power level of 0.8, which indicated that if the null hypothesis is false, it will be rejected (see Creswell, 2014). For this study, I used an alpha (α) level of 0.05, indicating a 5% probability of rejecting the null hypothesis (see Frankfort-Nachmias & Leon-Guerrero, 2015). Sample size was calculated with an effect size of 0.3, representing a medium strength of relationship between variables, G*power of 0.8, and two groups needed to conduct a Wilcoxon-Mann-Whitney means test. The sample size was 368 participants, or 184 per group (see Faul, 2019).

Sources of Data

Recruitment for this study was conducted utilizing social media platforms and directly e-mailing addresses collected through public sites, such as college and university websites. A public Facebook account was created for the survey link, which also outlined the purpose and significance of the study, along with how the collected data would be used. A standardized recruitment e-mail was developed that included the link to the survey, the purpose and significance of the study, how the collected data would be used, and a disclaimer that participation in the study would be voluntary.

The demographic information collected included age, gender, years of teaching, clinical specialty, clinical population, teaching rank, class size, type of nursing program, and highest degree. I also included a question addressing whether the participant had familiarity with UDI.

Data were collected with an online survey distributed through SurveyMonkey. Data were stored on a password-protected laptop with a backup stored to a password-protected cloud server, Microsoft OneDrive. Confidentiality and anonymity were maintained for all study participants.

Instrumentation

Data were collected using the Instructional Methods and Attitudes Faculty Survey (IMAFS) developed by Black et al. (2014). The IMAFS format was based on the survey by Izzo, Murray, and Novak (2008). Survey questions related to principles of UDI were included in the survey, along with demographic questions about the faculty's disability familiarity and willingness to accommodate students with disabilities (see Black et al., 2014). Two questions that focused on the use and frequency of instructional methods that incorporate UDI principles were measured on a 3-point Likert scale: 1 = not often, 2 = sometimes, and 3 = often. Faculty attitudes regarding accommodations and students with disabilities were addressed in two questions measured on a 5-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, and 5 = strongly agree.

Permission to use the IMAFS (see Appendix C) was received from R. David Black. According to Black et al. (2014), the survey was validated utilizing a think aloud method. The think aloud method is a technique to establish the cognitive validity of a tool (Pepper, Hodgen, Laesoo, Koiv, & Tolboom, 2016). This technique ensures that the participants interpret the survey questions the same way the survey designer had intended (Pepper et al., 2011).

Design and Analysis

Data were exported from SurveyMonkey to IBM Statistical Package for Social Sciences (SPSS) 25.0 software for data analysis. The following research question and hypotheses were used to guide the study:

RQ: What is the difference in teaching methods and attitudes toward students with disabilities between nursing faculty who are familiar with UDI and nursing faculty who are not familiar with UDI?

H_0: There is no difference in the teaching methods and attitudes toward students with disabilities between nursing faculty who are familiar with UDI and faculty who are not familiar with UDI.

H_a: There is a difference in the teaching methods and attitudes toward students with disabilities between nursing faculty who are familiar with UDI and faculty who are not familiar with UDI.

Data were screened for missing and outlier responses, including the review of all demographic information. Descriptive statistics were calculated for all variables. Because the data were ordinal and collected from the IMAFS that utilizes Likert-type 3-point and 5-point scales, I used a Wilcoxon-Mann-Whitney test. The assumption for Likert-type scales is that the unit is equal as it moves between categories (Simon & Goes, 2013). The Wilcoxon-Mann-Whitney test is the nonparametric alternative to a *t* test and is used when data are not normally distributed and can identify differences in the population median (Hart, 2001). With the Wilcoxon-Mann-Whitney test, the differences in medians should also be reported with the *p* value (Hart, 2001).

Results

Execution

After receiving Institutional Review Board approval (Study #05-29-19-0686236), I sent 300 e-mails to nursing faculty, deans, and directors at 15 colleges and universities throughout the United States. I also recruited participants through social media posts of the recruitment flyer and a SurveyMonkey link. The total sample consisted of 130 respondents, with 102 respondents who met the inclusion criteria of teaching in the classroom for a prelicensure nursing program.

The G*power calculations that were conducted a priori revealed that a sample size of 368, with 184 per group, based on an effect size of 0.3 was needed. An effect size is used to identify the strength of the conclusions between group differences (Creswell, 2014). An effect size of 0.50 indicates a medium effect and 0.2 indicates a small effect (Creswell, 2014; Sullivan & Feinn, 2012). Therefore, the 0.3 effect size for my a priori calculations was considered too small for the available target population size. I recalculated the effect size in G*power using 0.5, a medium effect, which required a sample of 134 or 67 per group (Faul, 2014). The sample size for faculty unfamiliar with UDI was $n = 61$, and the sample size for faculty familiar or very familiar with UDI was $n = 41$.

Results

The total sample size from data collected from e-mail and social media was 130 respondents, with 102 participants, which yielded a 78% completion rate.

In the sample, 55 respondents teach in an associate degree prelicensure nursing program, and 47 respondents teach in a baccalaureate degree program (see Table 1). Respondents ranged in age from 29 years or younger to 60 years or older (see Table 2); 94 identified as female and 5 identified as male. The clinical specialty of the respondents was 68 medical-surgical, eight mental health, 10 pediatrics, and 14 maternal-newborn (see Table 3).

Table 1

Prelicensure Nursing Program

	Frequency	Percentage
Associate's degree	54	41.9
Baccalaureate degree	47	36.4

Table 2

Age of Respondents, Years

	Frequency	Percentage
29 or younger	5	3.8
30-39	10	7.7
40-49	29	22.7
50-59	34	26.2
60-older	23	17.7

Table 3

Primary Clinical Specialty

	Frequency	Valid Percentage
Valid medical-surgical	69	68.3
Mental health	8	7.9
Pediatrics	10	9.9
Maternal newborn	14	13.9
Missing system	1	

Data Analysis

A Wilcoxon-Mann-Whitney test was used to compare the difference in inclusive teaching methods toward students with disabilities between nursing faculty unfamiliar with UDI and nursing faculty familiar with UDI. The first statistical assumption for the Wilcoxon-Mann-Whitney test is that there is one dependent variable measured at the ordinal level (Laerd Statistics, 2019). The dependent variables, teaching methods and attitudes, were ordinal and measured on a 3- and 5-point Likert scale. The second assumption is there is one independent variable that has two categorical, independent groups (Laerd Statistics, 2019). The third assumption is that participants can only be a member of one group (Laerd Statistics, 2019). The independent variable was the grouping of faculty familiar or very familiar with UDI compared to faculty unfamiliar with UDI. The fourth assumption is to determine whether the distribution scores for both groups have the same shape or a different shape (Laerd Statistics, 2019). A population pyramid was created to test this assumption: comparing the independent group to dependent variable of the frequency of use of teaching method brainstorming. The population pyramid showed a similar distribution pattern (see Figure 2) indicating a difference of means, which met the fourth assumption (see Laerd Statistics, 2019).

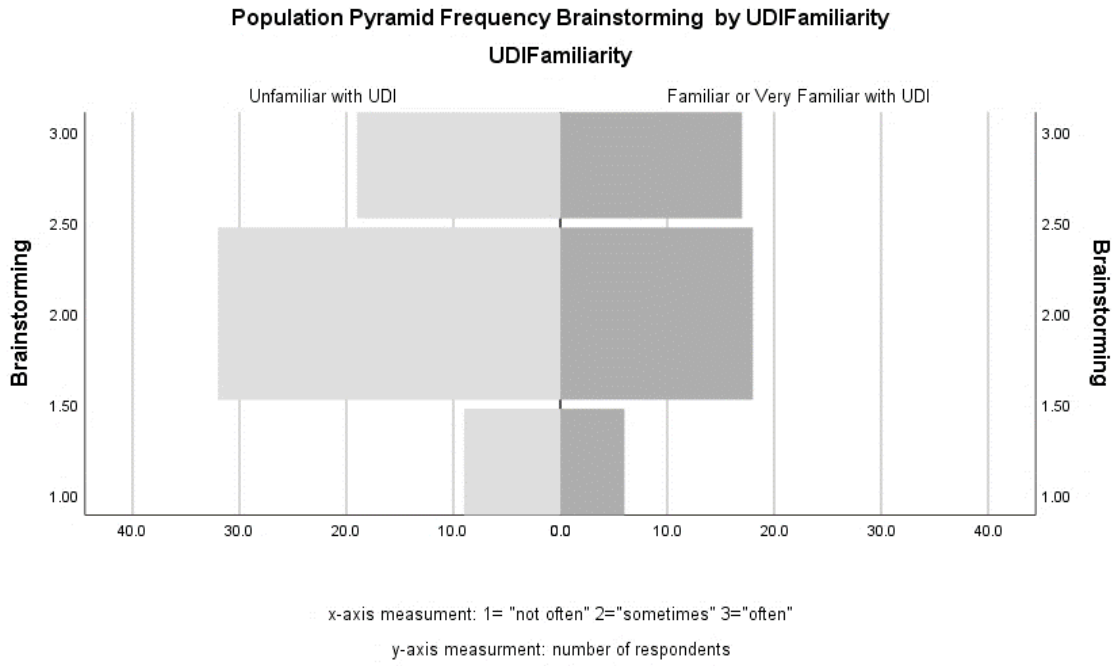

Figure 2. Population pyramid frequency brainstorming by familiar UDI.

Findings

A Wilcoxon-Mann-Whitney test was used to compare the frequency of use of the 16 inclusive teaching methods and agreement of 10 attitude statements between the two nursing faculty groups. There was a significant difference in frequency of use of inclusive teaching methods hands-on or interactive and problem solving ($U = 926.5$, $z = -2.455$, $p = 0.014$) and individual project components ($U = 966$, $z = -2.525$, $p = 0.043$) between faculty familiar or very familiar with UDI and faculty unfamiliar with UDI (see Table 4). Therefore, the null hypothesis was rejected for these two teaching methods. The Cohen's effect size for hands-on or interactive and problem solving ($d = 0.24$) and for individual project components ($d = 0.25$) indicated a small practical significance. There were no significant differences between the faculty groups for all other teaching methods (see Table 4). When comparing the attitudes toward students with disabilities between faculty

familiar or very familiar with UDI and faculty unfamiliar with UDI, I found no statistically significant difference (see Table 5).

Table 4

Wilcoxon-Mann-Whitney U Test

Inclusive teaching method	Mann-Whitney U	Wilcoxon W	Z	Aysmp.Sig. (2-tailed)
Lecture	1070.00	1931.00	-1.360	0.174
Guest speaker	1180.500	3071.500	-0.547	0.584
Brainstorming	1124.500	2954.500	-0.801	0.424
Videos	1098.500	2989.500	-1.173	0.241
Class discussion	1250.500	2111.500	0.0000	1.000
Small grp discussion	1129.500	3020.500	-0.0952	0.341
Case studies	1170.500	3061.500	-0.698	0.486
Hands-on/interactive/problem	926.500	2917.500	-2.455	0.014 [b]
Choice in assessment	1197.500	3027.600	-0.324	0.746
Follow syllabus	1241.000	3132.000	-0.222	0.825
Individual project components	966.000	2736.000	-2.525	0.043[b]
Class outline/slides before class	1212.000	2073.000	-0.380	0.704
Classroom arrangement	1167.500	3058.500	-0.776	0.438
Personal feedback	1120.000	3011.000	-1.238	0.216
Student communication observed	1062.500	2892.500	-1.878	0.060
Available outside class	1239.500	3130.500	-0.201	0.841

a. Grouping variable: UDIFamiliarity
b. Significant

Table 5

Wilcoxon-Mann-Whitney U Test

Attitude statements	Mann-Whitney U	Wilcoxon W	Z	Aysmp.Sig. (2-tailed)
Familiar with accommodations	1157.00	2987.000	-0.562	0.574
Willing to accommodate	1194.500	3024.500	-0.278	0.781
Willing to adapt instruction	1046.000	2876.000	-1.389	0.165
Same expectations	1184.000	3014.000	-0.359	0.720
Comfortable with technology use	1125.000	2955.000	-0.820	0.412
Comfortable discussing disability	1174.000	3004.000	-0.449	0.654
Learn from a variety of methods	1206.000	2067.000	-0.330	0.741
Get unfair advantages	1107.000	1968.000	-0.892	0.373
Should enroll in another class	1158.000	2019.000	-0.705	0.481
Difficult to work with	1119.000	1980.000	-0.940	0.347

a. Grouping variable: UDIFamiliarity

The research question for the study addressed whether there were differences in the frequency of use of inclusive teaching methods and the attitudes toward students with learning disabilities between prelicensure nursing faculty familiar with UDI and prelicensure nursing faculty unfamiliar with UDI. Data analysis revealed a significant difference in the use of inclusive teaching method hands-on or interactive and problem solving and individual project components; however, there was no statistical significance in the attitudes toward students with disabilities.

Discussion

Prelicensure nursing faculty were surveyed to identify UDI familiarity and to compare the difference in frequency of use of inclusive teaching methods and the

attitudes toward students with learning disabilities. The assumptions of UDI are that it is the role of the instructor to teach all students, regardless of disability, effectively without compromising academic standards through implementing various teaching methods (Scott et al., 2003). When instructors implement the principles of UDI, the learning needs for all students are met. Understanding which inclusive teaching methods are currently being used, along with faculty attitudes toward students with disabilities, can provide insight into barriers to learning.

Interpretation

Although there was statistical difference when comparing inclusive teaching methods based on familiarity of UDI, there was no significant difference in faculty attitudes toward students with learning disabilities. The results of my study indicated a significant difference in the use of the inclusive teaching methods of hands-on interactive and problem solving and individual project components; however, the Cohen's effect size indicated a small effect. Black et al. (2014) reported that these teaching methods were also used less frequently among faculty unfamiliar with UDI. The data indicated the frequency of use of the different methods based on UDI familiarity. Faculty reported using a variety of inclusive methods, with class discussion, case studies, and lecture used somewhat more often between both groups. Other methods that incorporate UDI principles, such as being available outside of class and following syllabus closely, were frequently used by both groups, which could be based on institutional policies requiring faculty to maintain office hours and post the course syllabus. These findings could indicate that prelicensure nursing faculty are implementing inclusive teaching methods in

the classroom; however, most faculty were unfamiliar with UDI. The teaching method with the least frequency of use among the faculty groups was guest speaker. My findings were also consistent with Black et al.'s (2014) findings in which college faculty reported not using guest speaker and using class discussion and lecture more frequently.

Becker and Palladino (2016), Black et al. (2014), and Sniatecki et al. (2015) reported that faculty reported overall positive attitudes toward students with disabilities; however, college faculty were more likely to agree that students with disabilities were difficult to work with compared to students without disabilities. These results could indicate that the profession of nursing is rooted in caring; therefore, nursing faculty might be reluctant to agree with negative statement toward students with learning disabilities and choose more socially acceptable responses (see Levey, 2016).

Limitations

Sample size was a limitation to this study. Although I had a total sample of size of 130, a respondent rate of 77%, and 102 respondents who met the inclusion criteria, the comparison groups did not have equal numbers. My adjusted power analysis with an effect size of 0.5 indicated I needed a total sample of 134, or 67 per group. However, my sample size was 102 with an uneven split between faculty group who reported being unfamiliar with UDI (n = 61) and the faculty group who were familiar or very familiar with UDI (n = 41). The inadequate sample size could have been due to the time of year when data were collected. Traditionally, nursing programs have either shorter summer terms or do not hold classes. This may have limited the number of faculty who would be available to respond to the e-mail survey. An inadequate sample size and unequal groups

could have decreased the strength of my findings or could have resulted in a type II error (see Laerd Statistics, 2019).

Implications

My study has the potential to promote social change by addressing the inclusive teaching methods and attitudes toward students with learning disabilities among prelicensure nursing faculty. As more students with disabilities enroll in higher education, nursing programs will see an increase in students who require learning accommodations to the be successful (Meloy & Gambescia, 2014). To provide learning accommodations, nursing faculty will need to adopt innovative teaching paradigms that promote inclusive learning (Levey, 2016). UDI is based on the principles that learning is equal and inclusive for all students, requiring little development for individual accommodations (Harris, 2018; Meloy & Gambescia, 2014). My study supported the use of UDI in nursing education by exploring the frequency of use of inclusive teaching methods. Although there was no significant difference in the use of most of the inclusive teaching methods between nursing faculty familiar with and not familiar with UDI, the results showed that more faculty are unfamiliar with UDI. Implementing inclusive teaching methods in nursing education could increase the success of all nursing students regardless of the presence of disability, which could result in more nurses entering the profession.

This study has implications for nursing education. Even though the results of my study indicated that nursing faculty reported overall positive attitudes toward nursing students, a gap in knowledge related to inclusive teaching paradigms was identified. The

implementation of UDI is supported in the literature; however, there is limited research on faculty knowledge related to UDI (Ashcroft & Lutfiyya, 2013; Harris, 2018). The sample of prelicensure nursing faculty who teach in the classroom who responded to the survey indicated that there are more nursing faculty who are not familiar with UDI. Harris (2018) stated that implementation of UDI can occur with stages; however, faculty need to first understand the principles of UDI.

Recommendations

Future studies could focus on the implementation of UDI in nursing education. In the current study, nursing faculty reported using inclusive learning strategies; however, these strategies are also universal to other teaching concepts, such as active learning (Hoke & Robbins, 2005). Research studies that address the development of inclusive teaching methods utilizing the UDI principles and implementation in the classroom could also address the effectiveness of UDI on student outcomes. Development of instruments to measure the use of UDI would provide reliability and validity to the teaching paradigm (Levey, 2018). Another recommendation would be to conduct a mixed-methods study to provide qualitative data regarding faculty and student perspectives about the use and implementation of UDI. Further exploration of these perspectives could provide understanding of faculty concerns related to UDI and students with disabilities, along with understanding of the barriers perceived by students with disabilities (Ashcroft & Lutfiyya, 2013).

Conclusion

Nursing faculty familiarity of UDI can be used to identify the frequency of use of inclusive teaching methods. Nursing faculty who teach in the classroom for prelicensure nursing programs participated in a study to determine whether UDI familiarity influenced the frequency of use of inclusive teaching methods and attitudes toward students with disabilities utilizing the IMAFS. More nursing faculty (n = 61) reported being unfamiliar with UDI compared to nursing faculty who reported being familiar or very familiar with UDI (n = 41), which supported the knowledge gap of UDI and inclusive teaching methods identified in the literature. A Mann-Wilcox-Whitney test was conducted to compare the difference in frequency of use of inclusive teaching methods and attitudes toward students with learning disabilities between nursing faculty familiar with UDI and nursing faculty unfamiliar with UDI. There was a significant difference in the frequency of use of the inclusive teaching methods of hands-on or interactive and problem solving and individual project components. Faculty unfamiliar with UDI used lecture more frequently compared to faculty familiar with UDI. There was no significant difference in faculty attitudes toward students with learning disabilities. Future research in the development and implementation of UDI is needed to identify the effectiveness of UDI on student learning. Understanding nursing faculty's use of UDI could improve the outcome of nursing students with learning disabilities.

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The Influence of Disability Familiarity on Faculty Attitudes and Teaching Methods

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Abstract

The number of students with learning disabilities are enrolling in college, including nursing, which increases the need by nursing faculty to develop and implement accommodations. These accommodations require the use of inclusive teaching methods to meet the learning needs of nursing students. The purpose of this study was to determine if disability familiarity influenced the frequency of use of inclusive teaching methods and attitudes towards students with disabilities utilizing the Instructional Methods and Attitudes Faculty Survey. Results showed that more nursing faculty (n=70) identified with disability familiarity compared to nursing faculty who identified with disability unfamiliarity (n=32),. A Mann-Wilcox-Whitney test was conducted to compare the difference in frequency of use of inclusive teaching methods which revealed a significant difference in the frequency of use of the inclusive teaching methods of brainstorming and hands-on or interactive problem solving. There was no significant difference in faculty attitudes towards students with learning disabilities. The data indicated the frequency of use of the different methods was linked to disability familiarity, which can promote an inclusive learning environment for students with learning disabilities. Understanding factors that influence nursing faculty's use of inclusive teaching methods could promote positive social change by improving the learning outcomes of students with learning disabilities. Recommendations for future research include faculty's understanding of developing learning accommodations that utilize UDI principles and students with physical disabilities in the clinical setting.

Introduction

It is estimated 1 in 5 people have been diagnosed with a learning disability (National Center for Learning Disabilities, 2019). As more students with disabilities enroll in college, post-secondary educators will be challenged with an increase in requests for academic accommodations (Marks & McCulloh, 2016). Faculty are responsible for developing and implementing the accommodations, however, nursing faculty often express concerns about how to adequately meet the learning needs of nursing students with disabilities (May, 2014). There is a lack of knowledge related to the barriers for nurse educators regarding the developing the accommodations for students with learning disabilities (Neal-Boylan & Smith, 2016).

Significance

Students with learning disabilities require academic accommodations, which are the adjustments and alterations made to the instructional design and learning environment to fit the student's learning needs (May, 2014). Nursing faculty report challenges related to the development of accommodations, ensuring that the requirements of students with disabilities are met without compromising the learning objectives (Meloy & Gambescia, 2014). These challenges could also stem from a lack of understanding and familiarity related to students with disabilities, along with identifying the frameworks that support inclusive learning (Marks & McCulloh, 2016).

The theoretical framework for this study is universal design for instruction (UDI), which is based on developing and implementing instruction that provides all students with an inclusive learning environment (Scott, McGuire, & Shaw, 2003). The principles

of UDI provide a framework that uses different teaching strategies which meet the learning styles and preferences for any student, regardless of disability (Scott, et al., 2003). The assumption is that when faculty implement UDI strategies, the need to adapt to develop individualized accommodations for students with disabilities is minimized (Black, Weinberg, & Brodwin, 2014). Courses developed with UDI principles can reduce the amount of time faculty spend on making alterations to the learning environment which could improve the perception towards students with disabilities (Levey, 2018).

There are misconceptions that the accommodations requested by students with disabilities will reflect on the student's ability to care for patients (Ashcroft & Lutfiyya, 2013). Nursing faculty perceive that if students with disabilities requires extra time to take a test, these students will have difficulty with time management with patient care (Ashcroft & Lutfiyya, 2013). These beliefs could further perpetuate the bias towards for students with disabilities and influence how nurse educators develop accommodations (Neal-Boylan & Smith, 2016). This quantitative study contributed to knowledge about factors that can influence nursing faculty's attitudes towards students with learning disabilities and utilization of inclusive teaching methods. The purpose of this study was to determine if disability familiarity influenced nursing faculty's attitudes and use of inclusive teaching methods toward students with disabilities.

Relevant Scholarship

Black, Weinberg, and Brodwin (2014) identified disability familiarity as a factor that influenced faculty attitudes and teaching methods towards students with disabilities. Faculty who had taught more than three students with disabilities reported the highest

familiarity with developing and implementing accommodations, with the lowest among faculty who have not taught students with disabilities (Black, et al., 2014). Ashcroft and Lutfiyya (2013) reported that nursing faculty's previous experience with students with disabilities influenced attitudes. Black, et al., (2014) also identified previous experiences with students with disabilities as a factor towards developing accommodations and implementing inclusive learning strategies.

Black, et al. (2014) reported that faculty who did not have a personal experience with disability compared to faculty who did, agreed that students with disabilities get unfair advantages and were difficult to work with compared to students without disabilities. Sniatecki, Perry, and Snell (2015) reported that nursing faculty agreed or strongly agreed that students with disabilities received unfair advantages over students without disabilities and the accommodations compromised academic integrity. Nursing faculty perceived students with disabilities as difficult to work with, requiring additional faculty time for assistance and supervision (Ashcroft & Lutfiyya, 2013).

Research Question

What is the difference in teaching methods and attitudes towards students with disabilities between nursing faculty with disability familiarity and nursing faculty without disability familiarity?

Nature of the Study and Design

I used descriptive, quantitative approach including a survey design to explore faculty attitudes toward students with disabilities and to identify UDI teaching methods that are implemented. For this study the independent variable was faculty disability

familiarity. The dependent variables were faculty attitudes and teaching methods. The results may be used by nursing faculty to develop understanding of the attitudes toward students with disabilities, and the teaching methods that are currently in use, which can promote inclusive learning.

Methods

Population

The target population for this study was nursing faculty who are classroom instructors that teach in a prelicensure nursing program that awards an associate or baccalaureate degree. Nursing faculty who teach in graduate and postgraduate programs were not included in this study, as students in these programs are already registered nurses.

Sample and Power

Purposive sampling was used to ensure that the adequate sample size was a achieved based on the characteristics of the population required for the study (see Burkholder, Cox, & Crawford, 2012). The inclusion criteria for the study was nursing faculty who teach in the classroom for any prelicensure nursing program. Nursing faculty who only teach clinical or lab in prelicensure nursing programs, along with faculty who teach in the RN-BSN, graduate, or doctorate programs, were excluded from the study. The exclusion criteria were based upon faculty who teach in these programs enroll students who are already registered nurses and have completed a prelicensure nursing program.

I calculated a power analysis with a power level of 0.8, (Creswell, 2014). an alpha (α) of 0.05 level of significance, (Frankfort-Nachmias & Leon-Guerrero, 2015),. and a medium effect size of 0.3, which yielded a sample size of 368 participants, 184 per group (see Faul, 2019).

Sources of Data

I recruited participants using social media platforms and directly e-mailing addresses collected through public sites, such as college and university websites. I created a public Facebook account for the survey link, which also outlined the purpose and significance of the study, along with how the collected data would be used. I developed a standardized recruitment e-mail that included the link to the survey, the purpose and significance of the study, how the collected data would be used, and a disclaimer that participation in the study would be voluntary.

The demographic information collected included, age, gender, years of teaching, clinical specialty, clinical population, teaching rank, class size, type of nursing program, and highest degree. I also included a question whether the participate had familiarity with disability.

Data were collected with an online survey distributed through SurveyMonkey. Data were stored on a password-protected laptop with a backup stored to a password-protected cloud server, Microsoft OneDrive. Confidentiality and anonymity were maintained for all study participants.

Instrumentation

Data were collected for this study using the Instructional Methods and Attitudes Faculty Survey (IMAFS) developed by Black et al., (2014). The IMAFS format was based on the survey by Izzo, Murray, and Novak (2008). Survey questions related to principles of UDI were included in the survey, along with demographic questions about the faculty's disability familiarity and willingness to accommodate students with disabilities (see Black et al., 2014). Two questions, which focus on the use and frequency of instructional methods that incorporate UDI principles, were measured on a 3-point: with 1= not often, 2= sometimes, and 3= often. Faculty attitudes regarding accommodations and students with disabilities are covered in two questions that were measured on a 5-point Likert scale: 1= strongly disagree, 2= disagree, 3= neither agree or disagree, 4= agree, and 5= strongly agree.

Permission to use the IMAFS (see Appendix C) was received from R. David Black. According to the authors (Black et al., 2014) the survey was validated utilizing a think aloud method. The think aloud method is a technique to establish the cognitive validity of a tool (Pepper, Hodgen, Laesoo, Koiv, & Tolboom, 2016). This technique ensures that the participants interpret the survey questions the same way the survey designer had intended (Pepper, et al., 2011).

Design and Analysis

Data were exported from SurveyMonkey to IBM Statistical Package for Social Sciences (SPSS) 25.0 software for data analysis. The following research question and hypotheses were used to guide the study:

RQ: What is the difference in teaching methods and attitudes towards students with disabilities between nursing faculty with disability familiarity and nursing faculty without disability familiarity?

H_0: There is no difference in the teaching methods and attitudes towards students with disabilities between nursing faculty with disability familiarity and nursing faculty without disability familiarity?

H_a: There is a difference in the teaching methods and attitudes towards students with disabilities between nursing faculty with disability familiarity and nursing faculty without disability familiarity?

Data were screened for missing and outlier responses, including the review of all demographic information. Descriptive statistics were calculated for all variables. Since the data were ordinal and collected from the IMAFS that utilizes a Likert-type 3-point and 5-point scales, I used a Wilcoxon-Mann-Whitney test. The assumption for Likert-type scales is that the unit is equal as it moves between categories (Simon & Goes, 2013). The Wilcoxon-Mann-Whitney test is the non-parametric alternative to a *t* test and is used when data might not be normally distributed and can identify differences in the population median (Hart, 2001). With the Wilcoxon-Mann-Whitney test, the differences in medians should also be reported with the *p* value (Hart, 2001).

Results

Execution

After receiving Institutional Review Board approval (Study #05-29-19-0686236), I sent 300 e-mails to nursing faculty, deans, and directors at 15 different colleges and

universities throughout the United States. I also recruited participants through social media posts of the recruitment flyer and a SurveyMonkey link. The total sample consisted of 129 respondents, with 101 respondents that met the inclusion criteria of teaching in the classroom for a prelicensure nursing program.

The G*power calculations that were conducted a priori revealed that sample size of 368, with 184 per group, based on an effect size of 0.3 was needed (Faul, 2014). An effect size is used to identify the strength of the conclusions between group differences (Creswell, 2014). An effect size of 0.50 indicates a medium effect and 0.2 indicates a small effect (Creswell, 2014; Sullivan & Feinn, 2012), with an effect size in between. Therefore, the 0.3 effect size for my a priori calculations was considered too small for the available target population size. I recalculated the effect size using G*power using 0.5, a medium effect, which require a sample of 134 or 67 per group (Faul, 2014). The sample size for faculty with disability familiarity was $n = 70$, and the sample size for faculty with was $n = 32$.

Results

The total sample size from data collected from e-mail and social media was 130 respondents, with 102 participants, which yielded a 78% completion rate. In the sample, 55 respondents teach in an associate's degree prelicensure nursing program and 47 respondents teach in a baccalaureate degree program (see Table 1). Respondents ranged in age from 29 years old or younger to 60 years old or older (see Table 2), with 94 who identified as female and 5 who identified as male. The clinical specialty of the

respondents was 68 medical-surgical, 8 mental health, 10 pediatrics, and 14 maternal-newborn (see Table 3).

Table 2

Prelicensure Nursing Program

	Frequency	Percent
Associate's degree	54	41.9
Baccalaureate degree	47	36.4

Table 2

Age of Respondents, Years

	Frequency	Percent
29 or younger	5	3.8
30-39	10	7.7
40-49	29	22.7
50-59	34	26.2
60-older	23	17.7

Table 3

Primary Clinical Specialty

	Frequency	Valid Percent
Valid medical-surgical	69	68.3
Mental health	8	7.9
Pediatrics	10	9.9
Maternal newborn	14	13.9
Missing System	1	

Data Analysis

A Wilcoxon-Mann-Whitney test was used to compare the difference in inclusive teaching methods toward students with disabilities between nursing faculty with disability familiarity and nursing faculty with disability unfamiliarity. The first statistical assumption for the Wilcoxon-Mann-Whitney test is that there is one dependent variable measured at the ordinal level (Laerd Statistics, 2019). The dependent variables, teaching methods and attitudes were ordinal, measured on a 3-and 5-point Likert scale. The second assumption is there is one independent variable that has two categorical, independent groups (Laerd Statistics, 2019). The third assumption is that participants can only be a member of one group (Laerd Statistics, 2019). The independent variable was the grouping of faculty with disability familiarity compared to faculty with disability unfamiliarity. The fourth assumption is to determine if the distribution scores for both groups have the same shape or different shape (Laerd Statistics, 2019). A population pyramid was created to test this assumption: comparing the independent group to dependent variable of the frequency of use of teaching method lecture. The population

pyramid shows a similar distribution pattern (see Figure 3) indicating a difference of means, which meets the fourth assumption (Laerd Statistics, 2019).

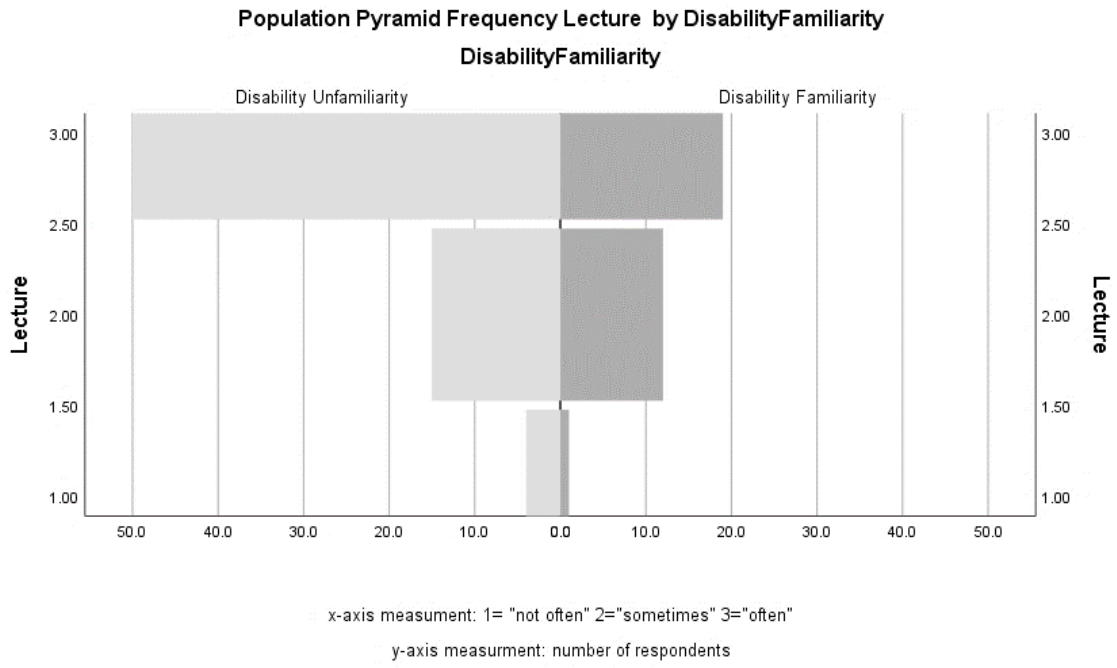

Figure 3. Population pyramid frequency lecture by disability familiarity.

Findings

A Wilcoxon-Mann-Whitney test to compare the frequency of use of the 16 inclusive teaching methods and agreement of 10 attitude statements and the two nursing faculty groups. There was a significant difference in frequency of use of inclusive teaching methods between faculty with disability familiarity and faculty with disability unfamiliarity was brainstorming (U=778.500, z= -2.477, p=0.013) and hands-on or interactive and problem solving (U=922, z= -2.213, p=0.025) (see Table 6). Therefore, the null hypothesis was rejected for these two teaching methods. The Cohen's effect size for brainstorming (d=0.24) and for hands-on or interactive and problem solving (d=0.21)

indicated a small practical significance. There were no significant differences between the faculty groups for all other teaching methods (see Table 6). When comparing the attitudes towards students with disabilities between faculty with disability familiarity and faculty with disability unfamiliarity, I found no statistically significant difference (see Table 7).

Table 6

Wilcoxon-Mann-Whitney U Test

Inclusive Teaching Method	Mann-Whitney U	Wilcoxon W	Z	Aysmp.Sig. (2-tailed)
Lecture	976.000	1540.000	-1.148	0.251
Guest speaker	1060.500	1588.500	-0.492	0.623
Brainstorming	778.500	1274.500	-2.477	0.013[b]
Videos	1083.000	3568.000	-0.302	0.763
Class discussion	980.000	1508.000	-1.465	0.143
Small grp discussion	1089.000	3574.500	-0.254	0.800
Case studies	1119.500	1647.500	-0.005	0.996
Hands-on/Interactive/Problem	922.000	1450.500	-2.213	0.025[b]
Choice in assessment	1001.000	1539.000	-1.082	0.279
Follow syllabus	1072.000	3557.000	-1.183	0.237
Individual project components	1019.000	1515.000	-0.281	0.778
Class outline/slides before class	1052.500	3537.500	-0.704	0.482
Classroom arrangement	1086.500	1614.500	-0.331	0.741
Personal feedback	1094.000	3509.000	-0.130	0.896
Student communication observed	958.500	1486.500	-1.722	0.085
Available outside class	1067.000	1595.000	-1.022	0.307

a. Grouping variable: DisabilityFamiliarity
b. Significant

Table 7

Wilcoxon-Mann-Whitney U test

Attitude Statements	Mann-Whitney U	Wilcoxon W	Z	Aysmp.Sig. (2-tailed)
Familiar with accommodations	948.500	23433.500	-1.119	0.263
Willing to accommodate	1065.500	3550.500	-0.163	0.871
Willing to adapt instruction	1043.000	3528.000	-0.337	0.736
Same expectations	922.500	3407.500	-1.350	0.177
Comfortable with technology use	905.000	3390.000	-1.496	0.135
Comfortable discussing disability	970.500	3455.500	-0.977	0.329
Learn from a variety of methods	966.000	1494.000	-1.208	0.227
Get unfair advantages	1000.000	1528.000	-0.796	0.426
Should enroll in another class	1022.500	2507.500	-0.785	0.432
Difficult to work with	1064.000	1592.000	-0.423	0.672

a. Grouping variable: DisabilityFamilarity

The research question for the study addressed whether there were differences in the frequency of use of inclusive teaching methods and the attitudes towards students with learning disability between prelicensure nursing faculty with disability familiarity and prelicensure nursing faculty with disability unfamiliarity. Data analysis revealed there was a significant difference in the use of inclusive teaching method brainstorming and hands-on or interactive and problem solving; however, there was no statistical significant difference in the attitudes towards students with disabilities.

Discussion

Students with learning disabilities require accommodations, which is the responsibility of the instructor to develop and implement (Marks & McCulloh, 2016). These accommodations place the burden on the instructor to ensure that the adjustments

meet the student with learning disabilities specific needs, without compromising the academic integrity of the learning (Harris, 2018). Understanding which inclusive teaching methods are currently being used, along with exploring faculty attitudes towards students with disabilities, can provide insight into barriers to learning.

Interpretation

Although there was some statistical difference when comparing inclusive teaching methods based on disability familiarity, there was no significant difference in faculty attitudes towards students with learning disabilities. Black et al. (2014) did not find a significant difference in the frequency of use of inclusive teaching methods when comparing disability familiarity. The results indicated faculty with disability familiarity used brainstorming and hands-on or interactive and problem solving more frequently than faculty with disability unfamiliarity, indicating that disability familiarity could influence the frequency of use of some inclusive teaching methods.

Black et al. (2014) reported that faculty with disability unfamiliarity were more likely to agree with the negative comments towards students with disabilities. Ashcroft and Lutfiyya's (2013) findings indicated that previous experience with students with disabilities influenced nursing faculty's attitudes. As nursing faculty gained more experience through working with students with disabilities, faculty's attitudes became more positive (Ashcroft & Lutfiyya, 2013). The results of my study did not show a difference in attitudes towards students with learning disabilities comparing disability. These findings could be influenced by the nursing faculty who desired to provide socially acceptable answers (see Ashcroft & Lutfiyya, 2013).

Limitations

Sample size was a limitation to this study. Although I had a total sample of size of 130, a respondent rate of 77%, and 102 respondents that met the inclusion criteria, the comparison groups did not have equal numbers. My adjusted power analysis with an effect size of 0.5 indicated I needed a total sample of 134, 67 per group. However, my sample size was 102 with an uneven split between the faculty group who reported disability familiarity (n=70) and the faculty group who had disability unfamiliarity (n=32). The inadequate sample size could have been due to the time of year when data were collected. Traditionally, nursing programs have either shorter summer terms or do not hold classes. This may have limited the number of faculty who would be available to respond to the email survey. An inadequate sample size and unequal groups could decrease the strength of my findings or could result in a type II error, (Laerd Statistics, 2019).

Implications

My study has the potential to promote social change by providing information in understanding how disability familiarity influences the frequency of use in teaching methods and attitudes towards students with learning disabilities. By identifying which factors influence faculty choice in teaching methods and their perceptions toward students with disabilities could lead to more inclusive learning environments (Levey, 2016). A positive social change could be created by promoting a diverse and inclusive workforce by increasing the number of nurses with disabilities entering the workforce.

The study has implications for nursing education. Nursing faculty are responsible for the development of learning accommodations for students with disabilities; however if faculty have limited experience, the faculty designed accommodations may not meet the student's learning needs (Meloy & Gambescia, 2014). The assumption of UDI is that faculty who implement a variety of inclusive teaching methods can meet the learning needs of any students, regardless of disabilities (Scott et al., 2003). My study supported the framework of UDI by identifying the frequency of use of inclusive teaching methods among nursing faculty.

Recommendations

Future studies could focus on nursing faculty's understanding of developing learning accommodations that utilize UDI principles. Further research that address on faculty awareness of disabilities and knowledge related to accommodations could decrease bias towards students with disabilities (Black, et al., 2014). Future investigation into learning disabilities should include students with physical disabilities in the clinical setting. Another recommendation would be to conduct a mixed-methods study to provide data regarding student and faculty perceptions and the effectiveness of inclusive teaching methods on student performance.

Conclusion

Nursing faculty who teach in the classroom for prelicensure nursing programs participated in a study to determine whether disability familiarity influenced the frequency of use of inclusive teaching methods and attitudes toward students with disabilities utilizing the IMAFS. A Mann-Wilcox-Whitney test was conducted to

compare the difference in frequency of use of inclusive teaching methods and attitudes towards students with learning disabilities between nursing faculty with disability familiarity and nursing faculty with disability unfamiliarity. There was significant difference in the frequency of use of the inclusive teaching methods of brainstorming and hands-on or interactive problem solving. There was no significant difference in faculty attitudes toward students with learning disabilities Future research in the development of learning accommodations utilizing UDI principles is needed to identify the effectiveness on student learning.

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The Influence of Clinical Specialty on Faculty Attitudes and Teaching Methods

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Doctor of Philosophy

Nursing Education

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Abstract

An increasing number of students with learning disabilities are entering higher education which creates a need for nurse educators to be able to identify pedagogies that promote inclusive learning. Learning barriers for students with disabilities exist which may be due to nurse educators' perceptions towards students with disabilities and influenced by the clinical backgrounds of nursing faculty. The purpose of this study was to explore if clinical specialty influenced the frequency of use of inclusive teaching methods and attitudes towards students with disabilities utilizing the Instructional Methods and Attitudes Faculty Survey (IMAFS). A Mann-Wilcox-Whitney test was conducted to compare the difference in frequency of use of inclusive teaching methods and attitudes toward students with learning disabilities between medical surgical nursing faculty(n=69) and mental health nursing faculty (*n*=8). The results showed that medical surgical nursing faculty were more likely to use inclusive teaching methods of providing class outlines or slides before class (p=0.015) and considered students with disabilities more difficult to work with compared to other students (p=0.047). A limitation to the study was the small sample size which resulted in unequal comparative groups. Understanding factors that influence faculty's attitudes and use of inclusive teaching methods may promote a positive social change by promoting an inclusive learning environment. Recommendations for future research focus on other faculty attributes that may influence and frequency their use of inclusive teaching methods and attitudes towards students with learning disabilities.

Introduction

Nursing faculty combine their clinical expertise with principles of instructional design to facilitate student learning (National League for Nurses, 2012). The recommended qualifications for nursing faculty include a clinical background which focuses on the science of nursing, along with preparation in teaching and learning (National Council of State Boards of Nursing, 2008). As an increase number of students with learning disabilities enter higher education, nurse educators will need to identify pedagogies that promote inclusive learning (Meloy & Gambescia, 2014). Barriers for students with disabilities exist due to nursing faculty's perceptions toward students with disabilities and the knowledge related to teaching methods and instructional design that promote inclusive learning (Marks & McCulloh, 2016). The different clinical backgrounds of nursing faulty could affect their attitudes towards students with disabilities, which could then influence effective inclusive learning.

Significance

Learning disabilities are disorders that can impact the individual's educational performance by impairing listening comprehension, verbal and written expression, reading skills and comprehension, and mathematical computation and problem solving (Gartland & Strosnider 2018). Learning disabilities are often viewed through the medical model by nurse educators, which can perceive students with disabilities as having an impairment (Levey, 2014). The faculty bias that students with disabilities are impaired perpetuates the belief that these students are a potential liability and safety threat in nursing practice (Marks & McCulloh, 2016). However, there is no research that supports

the belief that students with learning disabilities are unsafe or lack the ability to be successful in nursing programs (Meloy & Gambescia, 2014; May, 2014).

The approach towards teaching nursing students with disabilities from nursing faculty can vary and may be affected by the faculty member's attitudes which can be influenced by their clinical background. The clinical background or specialty of a nurse is often defined by the setting, population, and disease (Johnson & Johnson Nursing, 2018). Clinical background is also used to determine the courses the nursing faculty will teach. According to the Academy of Medical-Surgical Nurses (2019), medical-surgical is the largest specialty in nursing, which focuses on care of the acutely ill patient in the hospital. Mental health nurses assess and implement interventions to meet the mental health needs of patients and families in the inpatient and outpatient setting (American Psychiatric Nurses Association, 2018). Kennedy, Curtis, and Waters (2014) conducted a literature search that identified differences in personality traits among nurses in different specialties. There was a difference between medical-surgical and mental health nurses related to the traits of abasement, exhibition, and introception (Hewitt, Lackey, & Letvak, 2013). Medical-surgical nurses identified more with the trait of thinking, using logic, and systematic approach, rather than use of emotion to make decisions (Hewitt, et al., 2013). Therefore, how nursing faculty approach teaching students with disabilities could be affected by their clinical backgrounds, however there is a lack of research on this topic.

The theoretical framework for this study was universal design for instruction (UDI). UDI is based on the assumptions that the role of the educator is to not only teach diverse students, but all students effectively without altering the learning objectives or

compromise academic integrity by designing the instruction as an integrative approach of strategies that promote inclusive learning (Scott, McGuire, & Shaw, 2003). The UDI principles guide faculty on how to develop instruction that is flexible, equitable, simple and intuitive for any student, regardless of disability (Scott, et al., 2003). Developing and implementing instruction with UDI could decrease the need for individualized accommodations since different learning styles and preferences will be incorporated into the instruction (Black, et al., 2014).

This study contributed to the understanding of factors that influence nursing faculty's attitudes towards students with disabilities and identify best practices for inclusion. The purpose of this study was to determine whether clinical specialty influenced nursing faculty attitudes and teaching methods toward students with disabilities.

Relevant Scholarship

Levey (2016) explored nursing faculty's characteristics that influenced willingness to adopt inclusive teaching methods. Characteristics of gender, highest degree earned, employment status, and teaching responsibility were not statistically significant to predict willingness to adopt inclusive teaching methods, however years of teaching did have a negative effect (B=-0.008, $p < 0.001$) on faculty's willingness to adopt inclusive teaching methods (Levey, 2016). Black et al., (2014) surveyed college faculty about their attitudes toward students with disabilities to identify potential barriers to inclusive learning. When comparing faculty demographics age and years of teaching, there was no significance difference in the attitudes and inclusive teaching methods (Black et al.,

2014). However, when comparing the difference among the college departments, faculty in the Health and Human Services used guest lectures and small class discussion less frequently then other departments (Black et al., 2014). Faculty in the College of Education gave students the options in assessment methods more frequently compared to the other departments (Black et al., 2014). When comparing faculty attitudes among departments, there was no significance difference, however College of Engineering, Computer Science, and Technology faculty had more neutral or higher responses to negative statements regarding students with disabilities (Black et al., 2014). Becker and Palladino (2016) also reported that faculty from the College of Education were more likely to implement multiple inclusive teaching strategies compared to the Colleges of Art and Sciences, Business, and Health and Human Services.

There is limited research focusing on nursing faculty attitudes toward students with disabilities and the use of inclusive teaching methods (Neal-Boylan & Smith, 2016). Ashcroft and Lutfiyya (2013) conducted a grounded theory study to understand nursing faculty attitudes towards students with disabilities. Ashcroft and Lutfiyya (2013) identified past experiences, including faculty's clinical specialty, as a factor that influence nursing faculty attitudes. Nursing faculty with a mental health clinical background reported positive views towards students with disabilities, while faculty with a medical-surgical background had negative views (Ashcroft & Lutfiyya, 2013). Levey (2016) examined nursing faculty's willingness to adopt inclusive teaching methods reported demographics related to years of teaching, age, degree, and teaching responsibilities, however clinical specialty was not compared. There was a gap in

knowledge related to the influence of clinical specialty on faculty attitudes and inclusive teaching methods towards students with disabilities.

Research Question

What is the difference in teaching methods and attitudes towards students with learning disabilities among nursing faculty with a clinical specialty in mental health compared to nursing faculty with clinical specialty in medical-surgical?

Nature of the Study and Design

I used a descriptive, quantitative approach including a survey to explore faculty attitudes toward students with disabilities and to identify UDI teaching methods that are implemented. For this study the independent variable was faculty clinical specialty. The dependent variables were faculty attitudes and teaching methods. The results may be used by nurse faculty to develop understanding about the attitudes towards students with disabilities, along with identifying the teaching methods that are currently in use which can promote inclusive learning.

Methods

Population

The target population for this study was nursing faculty who are classroom instructors that teach in a prelicensure nursing program that awards an associate's or baccalaureate degree. Nursing faculty who teach in graduate and post graduate programs was not included in this study, as students in these programs are already registered nurses.

Sample and Power

Purposive sampling was used for the study to ensure that the adequate sample size was achieved based on the characteristics of the population required for the study (see Burkholder, Cox, & Crawford, 2012). The inclusion criteria for the study were nursing faculty who teach in the classroom for any prelicensure nursing program. Nursing faculty who only teach clinical or lab in prelicensure nursing programs, along with faculty who teach in the RN-BSN, graduate, or doctorate programs were excluded from the study. The exclusion criteria were based upon faculty who teach in these programs enroll students who are already registered nurses and have completed a prelicensure nursing program.

The power analysis was based on a power level of 0.8, (see Creswell, 2014), an alpha (α) of 0.05 level of significance, (see Frankfort-Nachmias & Leon-Guerrero, 2015), and a medium effect size of 0.3 with G* power (Faul, 2014) . The sample size determined was 368 participants, 184 per group (Faul, 2014).

Sources of Data

Recruitment for this study was conducted utilizing social media platforms and directly e-mailing addresses collected through public sites, such as college and university websites. A public Facebook post was created for the survey link, which also outlined the purpose and significance of the study, along with how the collected data will be used. A standardized recruitment e-mail was developed, that included the link to the survey, the purpose and significance of the study, how the collected data will be used, and a disclaimer that participation in the study is voluntary.

The demographic information collected included, age, gender, years of teaching, clinical specialty, clinical population, teaching rank, class size, type of nursing program, and highest degree. I also included a question whether the participate has familiarity with UDI.

Data were collected with an online survey, developed through SurveyMonkey. Data were stored on a password protected laptop, with a backup stored to a password protected cloud server, Microsoft OneDrive. Confidentiality and anonymity were maintained for all study participants.

Instrumentation

Data were collected for this study using the Instructional Methods and Attitudes Faculty Survey (IMAFS), developed by Black et al., (2014). The IMAFS format was based on the survey by Izzo, Murray, and Novak (2008). Survey questions related to principles of UDI were included in the survey, along with demographic questions about the faculty's disability familiarity and willingness to accommodate students with disabilities (see Black et al., 2014). Two questions, which focused on the use and frequency of instructional methods that incorporate UDI principles, were measured on a 3-point: with 1 = not often, 2 = sometimes, and 3 = often. Faculty attitudes regarding accommodations and students with disabilities were covered in two questions that were measured on a 5-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, and 5 = strongly agree.

Permission to use the IMAFS (see Appendix C) was received from Dr. R. David Black. According to Black et al. (2014), the survey was validated utilizing a think aloud

method. The think aloud method is a technique to establish the cognitive validity of a tool (Pepper, Hodgen, Laesoo, Koiv, & Tolboom, 2016). This technique ensures that the participants interpret the survey questions the same way the survey designer had intended (Pepper, et al., 2011).

Design Analysis

Data were exported from SurveyMonkey to IBM Statistical Package for Social Sciences (SPSS) 25.0 software for data analysis. The following research question and hypothesis were used to guide the study:

RQ: What is the difference in teaching methods and attitudes towards students with disabilities between nursing faculty with clinical specialty in mental health compared to nursing faculty with clinical specialty in medical-surgical population?

H_0: There is no difference in the teaching methods and attitudes towards students with disabilities between nursing faculty with clinical specialty in mental health compared to nursing faculty with clinical specialty in medical-surgical.

H_a: There is a difference in the teaching methods and attitudes towards students with disabilities between nursing faculty with clinical specialty in mental health compared to nursing faculty with clinical specialty in medical-surgical.

Data were screened for missing and outlier responses, including the review of all demographic information. Descriptive statistics were calculated for all variables. Since the data was ordinal and collected from the IMAFS that utilizes a Likert-type 3-point and 5-point scales, I used a Wilcoxon-Mann-Whitney test. The assumption for Likert-type scales is that the unit is equal as it moves between categories (Simon & Goes, 2013). The

Wilcoxon-Mann-Whitney test is the non-parametric alternative to a *t* test and is used when data are not normally distributed and can identify differences in the population median (Hart, 2001). With the Wilcoxon-Mann-Whitney test, the differences in medians should also be reported with the *p* value (Hart, 2001).

Results

Execution

After receiving Institutional Review Board approval (Study #05-29-19-0686236), I sent 300 e-mails to nursing faculty, deans, and directors at 15 different colleges and universities throughout the United States. I also recruited participants through social media posts of the recruitment flyer and a SurveyMonkey link. The total sample consisted of 129 respondents, with 102 respondents who met the inclusion criteria of teaching in the classroom for a prelicensure nursing program.

The G*power calculations that were conducted a priori revealed that sample size of 368, with 184 per group, based on an effect size of 0.3 was needed. An effect size is used to identify the strength of the conclusions between group differences (Creswell, 2014). An effect size of 0.50 indicates a medium effect and 0.2 indicates a small effect (Creswell, 2014; Sullivan & Feinn, 2012). Therefore, using the 0.3 effect size for my a priori calculations was considered too small for the available target population size. I recalculated the effect size using G*power using 0.5, a medium effect, which requires a sample of 134 or 67 per group (Faul, 2014). The sample sizes for nursing faculty with medical surgical clinical specialty was n=69 and nursing faculty with mental health clinical specialty was n=8.

Results

The total sample size from data collection from email and social media was 130 respondents, with 102 participants which yielded a 78% completion rate. In the sample, 55 respondents teach in an associate's degree prelicensure nursing program and 47 respondents teach in a baccalaureate degree program (see Table 1). Respondents ranged in age from 29 years old or younger to 60 years old or older (see Table 2), with 94 who identified as female and 5 who identified as male. The clinical specialty of the respondents was 68 medical-surgical, eight mental health, 10 pediatrics, and 14 maternal-newborn (see Table 3).

Table 3

Prelicensure Nursing Program

	Frequency	Percent
Associate's degree	54	41.9
Baccalaureate degree	47	36.4

Table 2

Age of Respondents, Years

	Frequency	Percent
29 or younger	5	3.8
30-39	10	7.7
40-49	29	22.7
50-59	34	26.2
60-older	23	17.7

Table 3

Primary Clinical Specialty

	Frequency	Valid Percent
Valid Medical-surgical	69	68.3
Mental Health	8	7.9
Pediatrics	10	9.9
Maternal Newborn	14	13.9
Missing System	1	

Data Analysis

I used a Wilcoxon-Mann-Whitney test to compare the difference in inclusive teaching methods towards students with disabilities between nursing faculty with medical surgical clinical specialty and nursing faculty with mental health clinical specialty. The first statistical assumption for the Wilcoxon-Mann-Whitney test is that there is one dependent variable measured at the ordinal level (Laerd Statistics, 2019). The dependent variables, teaching methods and attitudes were ordinal, measured on a 3-and 5-point Likert scale. The second assumption is there is one independent variable that has two categorical, independent groups (Laerd Statistics, 2019). The third assumption is that participants can only be a member of one group (Laerd Statistics, 2019). The independent variable was the grouping of medical surgical nursing faculty and mental health nursing faculty. The fourth assumption is to determine if the distribution scores for both groups have the same shape or different shape (Laerd Statistics, 2019). A population pyramid was created to test this assumption: comparing the independent group to dependent variable of the frequency of use of teaching method lecture. The population pyramid shows a similar distribution pattern (see Figure 4) indicating a judgement that there is a difference of means, which meets the fourth assumption (see Laerd Statistics, 2019).

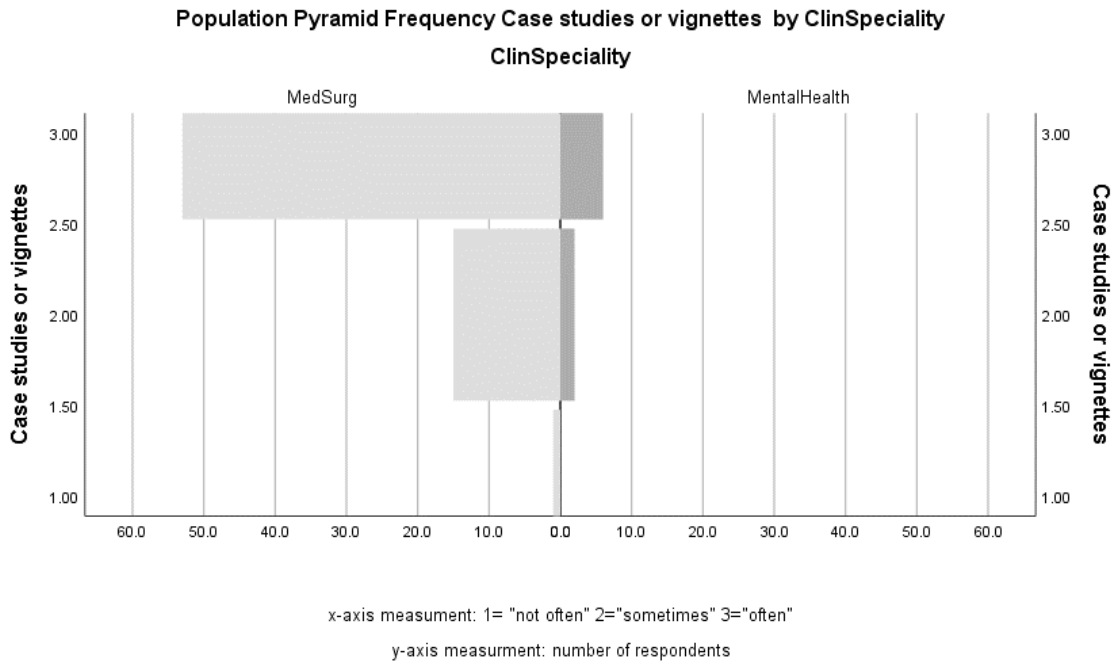

Figure 4. Population pyramid frequency case studies or vignettes by clinical specialty.

Findings

A Wilcoxon-Mann-Whitney test was used to compare the frequency of use of the 16 inclusive teaching methods and agreement of 10 attitude statements between the two nursing faculty groups. There was a significant difference in frequency of use of inclusive teaching method providing class outline or lecture slides before class (U=178, z= -2.437, p=0.015) (see Table 8) between medical surgical nursing faculty and mental health nursing faculty. Therefore, the null hypothesis was rejected. The Cohen's effect size (d=0.24) indicates a small practical significance. There were no significant differences between the faculty groups for all teaching methods (see Table 8). When comparing the attitudes towards students with disabilities between medical surgical nursing faculty and mental health nursing faculty, there was a significant difference in

agreement with the statement that students with disabilities are more difficult to work with than other students (*U*=162, *z*= -1.987, *p*=0.047) (see Table 9). Cohen's effect size (*d*=0.19) was below the threshold for a small effect size. There were no significant differences between faculty groups for all other attitude statements (see Table 9).

Table 8

Wilcoxon-Mann-Whitney U Test

Inclusive Teaching Method	Mann-Whitney U	Wilcoxon W	Z	Aysmp.Sig. (2-tailed)
Lecture	269.500	305.500	-0.051	0.959
Guest speaker	177.000	2592.000	-1.892	0.058
Brainstorming	234.000	2580.000	-0.705	0.481
Videos	253.000	2683.000	-0.151	0.880
Class discussion	274.500	289.000	-0.590	0.555
Small grp discussion	274.500	310.500	-0.030	0.976
Case studies	272.000	308.000	-0.091	0.928
Hands-on/Interactive	246.500	2661.500	-0.547	0.584
Choice in assessment	323.500	2578.500	-0.940	0.347
Follow syllabus	272.000	2687.000	-0.341	0.733
Individual project components	174.000	210.000	-1.726	0.084
Class outline/slides before class	178.000	214.000	-2.437	0.015[b]
Classroom arrangement				
Personal feedback	232.000	268.000	-1.039	0.299
Student communication observed	270.000	306.000	-0.060	0.952
Available outside class	201.500	229.500	-1.226	0.220
	268.000	2683.000	-0.485	0.628

a. Grouping variable: ClinicalSpeciality
b. Significant

Table 9

Wilcoxon-Mann-Whitney U Test

Attitude Statements	Mann-Whitney U	Wilcoxon W	Z	Aysmp.Sig. (2-tailed)
Familiar with accommodations	256.000	2671.000	-0.374	0.708
Willing to accommodate	271.000	2632.000	-1.130	0.256
Willing to adapt instruction	226.000	2641.000	-0.918	0.359
Same expectations	215.000	251.000	-1.149	0.250
Comfortable with technology use	206.000	242.000	-1.331	0.183
Comfortable discussing disability				
Learn from a variety of methods	263.000	2678.000	-0.252	0.801
Get unfair advantages				
Should enroll in another class	236.000	272.000	-0.719	0.472
Difficult to work with	230.000	2576.000	-0.749	0.454
	275.000	2690.500	-0.009	0.992
	162.000	198.000	-1.987	0.047[b]

a. Grouping variable: ClinicalSpeciality
b. Significant

The research question for the study addressed whether there were differences in the frequency of use of inclusive teaching methods and the attitudes toward students with learning disability between prelicensure nursing faculty with medical surgical clinical specialty and prelicensure nursing faculty with mental health clinical specialty. Data analysis revealed the only significant difference in the use of inclusive teaching method providing class notes or lecture slides prior to class. There was also a significant difference in the agreement of the attitude statement that students with disabilities are more difficult to work with compared to students without disabilities.

Discussion

Nursing faculty are comprised of educators who have clinical experience in providing care in a variety of settings and to different patient populations. Learning

disabilities are often viewed through the medical model by nurse educators, which can perceive students with disabilities as having an impairment (Levey, 2014). The faculty bias that students with disabilities are impaired perpetuates the belief that these students are a potential liability and safety threat in nursing practice (Marks & McCulloh, 2016). Exploring if the clinical specialty of the nurse faculty could influence the use of inclusive methods and attitudes towards students with learning disabilities could identify a potential barrier to student learning.

Interpretation

The analysis did identify a difference with the attitude statement that students with disability are more difficult to work with compared to students without disabilities between mental health nursing faculty and medical surgical, however the Cohen's effect was below the 0.20 small effect threshold (d =0.19). Mental health nurses are often associated with using emotions and empathy to make decisions (Hewitt et al., 2013). These findings correlated with the qualitative study by Ashcroft and Lutfiyya (2013), which reported that mental health faculty had more positive views towards students with disabilities compared to faculty without mental health clinical experience. While the difference between clinical specialties and use of inclusive teaching methods has not been explored in the literature; the overall data from my study did not indicate that clinical specialty influences the use of inclusive teaching methods.

Limitations

Sample size was a limitation to this study. Although I had a total sample of size of 130, a respondent rate of 77%, and 102 respondents that met the inclusion criteria, the

comparison groups did not have equal numbers. My adjusted power analysis with an effect size of 0.5 indicated I needed a total sample of 134, 67 per group. However, my sample size was 102 with an uneven split between the faculty groups who reported primary clinical specialty as medical surgical (n = 69) and those with primary clinical specialty as mental health (n = 8). The inadequate sample size could have been due to the time of year when data were collected. Traditionally, nursing programs have either shorter summer terms or do not hold classes. This may have limited the number of faculty who would be available to respond to the email survey. An inadequate sample size and unequal groups could decrease the strength of my findings or could result in a type II error, (Laerd Statistics, 2019).

Implications for Social Change

My study has the potential to promote social change by understanding how faculty member's clinical specialty influences the frequency of use in teaching methods and attitudes towards students with learning disabilities. By identifying factors that influence faculty's use of inclusive teaching methods, nursing faculty can adopt pedagogies that create an inclusive learning environment (Marks & McCulloh, 2016). An inclusive learning environment may provide more opportunities for students with learning disabilities to become nurses.

The implications for nursing education focus on faculty attributes that promote inclusive learning environment. Since learning disabilities are often viewed through the medical model which perceives that students with disabilities are viewed as having an impairment (Levey, 2014, Marks & McCulloh, 2016), the clinical background of faculty

could influence their approach to teaching students with disabilities. Implementing inclusive learning pedagogies, such as UDI, can decrease the barriers to learning for students with disabilities (Harris, 2018). Understanding the factors that influence nursing faculty can promote the shift in nursing education towards inclusive learning.

Recommendations

Future research could focus on other faculty attributes that may influence their use of inclusive teaching methods and attitudes towards students with learning disabilities. These attributes could be explored related to frequency of use of inclusive teaching methods and attitudes, along with comparing familiarity with UDI. Sample populations that focus on other clinical specialties, such pediatrics and maternal newborn, could provide further insight. Another recommendation for research would focus on best methods to educate faculty about students with learning disabilities.

Conclusion

Nursing faculty clinical specialty can be used to identify the frequency of use of inclusive teaching methods. Nursing faculty who teach in the classroom for prelicensure nursing programs participated in a study to explore if clinical specialty influenced the frequency of use of inclusive teaching methods and attitudes towards students with disabilities utilizing the IMAFS. More nursing faculty (n=69) indicated primary clinical specialty as medical surgical compared to nursing faculty who indicated primary clinical specialty as mental health (n=8). A Mann-Wilcox-Whitney test was conducted to compare the difference in frequency of use of inclusive teaching methods and attitudes towards students with learning disabilities between medical surgical nursing faculty and

mental health nursing faculty. There was significant difference in the frequency of use of the inclusive teaching method of providing class outline or slides lectures slides before class, which was used more frequently by medical surgical nursing faculty. There was also a significant difference in the disagreement with the attitude that students with disabilities are more difficult to work with compared to other students. However, with a small sample size for mental health nursing faculty, the effect size is 1.0 which could decrease the significance of the findings. Future research is needed to explore other faculty attributes that can influence the frequency of use inclusive teaching methods and attitudes.

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Part 3: Summary

Integration of the Studies

The purpose of this three-manuscript dissertation was to explore the factors that could influence the use of inclusive teaching methods and to explores attitudes toward students with learning disabilities among prelicensure nursing faculty. Faculty attributes included in the research were UDI familiarity, disability familiarity, and clinical specialty. Data were collected using the IMAFS (Black et al., 2014), which is used to measure the frequency of use of 16 inclusive teaching methods and the agreement of 10 attitude statements. Even though the inclusion criteria of prelicensure nursing faculty who teach in the classroom yielded a total sample of 102, which was a 78% response rate, there were inconsistencies between the independent sample groups. However, the data provided insight into nursing faculty's use of inclusive teaching methods and attitudes toward students with learning disabilities.

Common Themes/Results

Nursing faculty reported using a variety of inclusive teaching methods including lecture, class discussion, and case studies or vignettes, which were frequently used equally when comparing UDI familiarity, disability familiarity, and clinical specialty. There was no difference in the frequency of use among groups related to following syllabus, provide feedback, and be available outside of class. These findings were consistent with Black et al.'s (2014) study in which the IMAFS was used to survey college faculty from different programs. Black et al. found that the inclusive teaching methods of guest lecture, videos, and providing students with disabilities a choice in

assessment methods were used less frequently among the faculty. The results of my study indicated that these methods were also the least frequently used among the groups; however, mental health nursing faculty reported using these methods more often compared to the other groups. Mental health nursing faculty provided class notes or lecture slides before class less often compared to the other faculty groups.

Regarding faculty attitudes toward students with disabilities, the literature indicated that faculty had positive views (Ashcroft & Lutfiyya, 2013; Becker & Palladino, 2016; Black et al., 2014). The results of my study did not show any significant difference among the groups related to nursing faculty attitudes. Black et al. (2014) found that disability familiarity influenced responses to the statement regarding the assertion that students with disabilities get unfair advantages and are more difficult to work with, with faculty reporting disability familiarity disagreeing more with these statements. My results showed that nursing faculty mostly disagreed with these statements.However, mental health nursing faculty had the highest report of strongly disagreeing with these statements. This was consistent with Ashcroft and Lutfiyya's (2013) findings that mental health nurses had positive views toward students with disabilities.

The theoretical framework, UDI, focuses on the use of principles to design instruction that promotes an inclusive learning environment for any student regardless of disability (Scott et al., 2003). The implementation of UDI in nursing education has been supported in the literature (Harris, 2018; Levey, 2018; Meloy & Gambescia, 2014); however, there is a gap in knowledge among nursing faculty related to inclusive teaching methods. The sample size of nursing faculty who were unfamiliar with UDI was $n = 61$,

compared to nursing faculty who were familiar or very familiar with UDI (n = 41), which supported the gap in knowledge. When faculty implement UDI strategies that incorporate different learning styles and preferences, the need to adapt the instruction for students with learning disabilities is minimized (Black et al., 2014). When faculty are guided by the UDI framework, the instruction is inclusive for all students without the requirement to make individual accommodations. Identifying that nursing faculty are unfamiliar with UDI is the first step toward implementing UDI within nursing education (Harris, 2018).

Positive Social Change

Exploring how nursing faculty perceptions of students with disabilities and knowledge related to inclusive teaching methods can lead to developments in best practices to meet the learning needs for students with disabilities (Marks & McCulloh, 2016). The results of my study showed that even though nursing faculty are unfamiliar with UDI, they reported using inclusive teaching methods as frequently as faculty who are familiar with UDI. Although nursing faculty have overall positive attitudes toward students with learning disabilities, developing a more inclusive learning environment can support diverse students to become nurses (Marks & McCulloh, 2016).

Future Research

My recommendations for future research include exploring more faculty attributes, such as degrees and years of teaching, that can influence the use of inclusive teaching methods and attitudes toward students with disabilities. I recommend further research that focuses on best practice to educate faculty about inclusive teaching paradigms, such as UDI. Researchers could also explore the development of inclusive

teaching methods utilizing the UDI principles and implementation in the classroom to measure the effectiveness of UDI on student outcomes. Development of instruments to measure the use of UDI would provide reliability and validity to the teaching paradigm (Levey, 2018). The current study focused the use of inclusive teaching methods in the classroom to support students with learning disabilities; however, further research should be done to address students with physical disabilities and cognitive disorders in the clinical setting.

Lessons Learned

I used the IMAFS, which was developed by Black et al. (2014), to survey college instructors. Black et al. reported that a total of 485 faculty members were recruited for their study, but only 73 completed surveys. For my study, I had a similar number of faculty recruited, with a total of 130 responses, but only 102 respondents met the inclusion criteria. Even though I had a higher return rate, my comparison group samples were still low. Recruiting via e-mail over summer was a limitation to the study; more respondents were recruited from social media posts. For a study targeting nursing faculty, I would focus participation recruitment during the traditional school year. The decreased sample size of the groups, especially mental health nursing faculty, could influence the significance of the results.

Another lesson I learned was the development of my research questions. For the three-manuscript dissertation, one study with three interrelated research questions was conducted to address a broader problem, which was attitudes and teaching methods toward students with learning disabilities. After determining the sample sizes and

reviewing the data, I identified that the research questions were similar, focusing on factors that could influence the use of inclusive methods and attitudes. The IMAFS provided other results such as years of teaching and the number of students with learning disabilities in a class, which may have provided further insight or validated findings.

Conclusion

My study did not yield significant findings that could confirm whether UDI familiarity, disability familiarity, and clinical specialty influenced prelicensure nursing faculty's use of inclusive teaching methods and attitudes toward students with disabilities. My findings supported the knowledge gap among nursing faculty related to UDI, which could lead to further research regarding the development and implementation of UDI in nursing education.

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Appendix A: Instructional Methods and Attitudes Faculty Survey

Instructional Methods and Attitudes Faculty Survey

Directions: This survey should take no more than 15-20 minutes. The statements below are written for faculty to describe their attitudes and perceptions of students with disabilities and instructional methods incorporating Universal Design for Learning.

1. How many years of college teaching do you have? _____

2. What class level(s) do you teach? (mark all that apply)
   a. Undergraduate
   b. Graduate
   c. Other_____
3. What class size do you teach? (may list a range or average number of students in your classes) _____

4. What is your age?
   a. 29 years or younger
   b. 30-39 years
   c. 40-49 years
   d. 50-59 years
   e. 60 years or older

5. What is your gender? _____

6. Do you have a disability?
   a. Yes
   b. No

7. Have you had personal or family experience with an individual who has a disability?
   a. Yes
   b. No

8. Approximately how many students with disabilities (who you were are of) have you had in your classes within the last year?
   _____

9. How familiar are you with the term Universal Design for Learning?
   a. Not familiar
   b. Familiar

c. Very familiar

10. In your classes, how often do you use the following instructional methods? (Please respond to all)

	Not Often	Sometimes	Often
Lecture	1	2	3
Guest Speaker	1	2	3
Brainstorming	1	2	3
Videos	1	2	3
Class discussion	1	2	3
Small group discussion	1	2	3
Case studies or vignettes	1	2	3
Hands-on or interactive activities	1	2	3
Critical thinking and problem solving	1	2	3
Other, please specify:	1	2	3

11. Please rate the frequency of the following?

	Not Often	Sometimes	Often
I give students (with or without disabilities) a choice in assessment methods (e.g., taking a test, writing a paper, or online project)	1	2	3
I follow my syllabus closely	1	2	3
I give an option to turn in individual project components for feedback for later integration into a final project	1	2	3
Class outline or lecture slides are provided prior to class	1	2	3
I ensure that the classroom is arranged so that it is approachable and accessible	1	2	3
I provide personal feedback as needed	1	2	3
Communication and interaction among students is observed	1	2	3
I am available to students outside of class	1	2	3

12. Rate your overall experiences with students with disabilities in your class:
    a. Positive
    b. Neither positive nor negative
    c. Negative
    d. No experience

13. When I have a student with a disability in my class, I (Please respond to all)

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Am familiar with the types of accommodations that may be used	1	2	3	4	5
Am willing to provide accommodations	1	2	3	4	5
Am willing to adapt my instructional strategies and course materials to meet students' needs	1	2	3	4	5
Have the same expectations from students with disabilities as from other students	1	2	3	4	5
Feel comfortable when the students uses assistive technology (such as tape recorder or computer in my classroom)	1	2	3	4	5
Feel comfortable when the student talks to me about his/her disability	1	2	3	4	5

14. Please rate the following: (Please respond to all)

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Students with disabilities are better able to learn if faculty use a variety of teaching methods in their classes	1	2	3	4	5
Students with disabilities tend to get unfair advantages	1	2	3	4	5
Students with disabilities should be enrolled in a class other than mine	1	2	3	4	5
Students with disabilities are more difficult to work with than other students	1	2	3	4	5

15. Please provide any comments you wish to share.

Appendix B: Demographic Questions

Part 2: Demographic Questions

Demographic Questions

16. What type of nursing program do you teach? (Select all that apply)
    a. Prelicensure Diploma
    b. Prelicensure Associate Degree
    c. Prelicensure Bachelor's Degree
    d. RN to BSN
    e. Master's in Nursing
    f. Doctorate in Nursing

17. Do you teach in the classroom?
    a. Yes
    b. No

18. Which of the following is your primary clinical specialty you teach?
    a. Medical-surgical
    b. Mental Health
    c. Pediatrics
    d. Maternal Newborn

Appendix C: Permission to Use

Instructional Methods and Attitudes Faculty Survey

RE: Permission request to use survey

From: Melissa Radecki
Sent: Thursday, November 29, 2018 1:55 PM
To: R. David Black
Subject: RE: Permission request to use survey

Dr. Black,
I appreciate the quick response to my email. Thank you so much for granting permission to use your survey in my study. Your research in Universal Design is what lead me to my dissertation topic. I am interested in how Universal Design can be implemented in professional degree programs, such as nursing, where students with disabilities have not always been included.

Thank you again,
Melissa

Melissa “Missy” Radecki, MSN N.Ed., RN, PCCN-K

From: R. David Black
Sent: Wednesday, November 28, 2018 9:18:54 PM
To: Melissa Radecki
Subject: Re: Permission request to use survey

Hi Melissa,

Sounds interested. Yes, you can use my survey. Please let me know if you have any questions.

David
R. David Black, Ed.D., MS, MPH, CRC, LPCC, NCC
Adjunct Assistant Professor
Division of Special Education and Counseling
Charter College of Education
California State University, Los Angeles

On Tue, Nov 27, 2018 at 12:11 PM Melissa Radecki wrote:
Dr. Black,

Good afternoon, my name is Melissa Radecki and I am a PhD Nursing Education student at Walden University. I am currently working on my 3-manuscript dissertation. The purpose of my study is to explore the attitudes and instructional methods among nursing faculty related to teaching students with disabilities I would like permission to use your survey, *Instructional Methods and Attitudes Faculty Survey*.

Thank you for your time and consideration to my request. I look forward to hearing from you. If you have any further questions or conditions for use, please contact me at the information below.

Melissa “Missy” Radecki, MSN N.Ed., RN, PCCN-K

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